EMPOWER PROGRAM COST ANALYSIS

Prepared for the Maryland Energy Administration
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EXECUTIVE SUMMARY

EmPOWER Maryland ("EmPOWER") has served the State of Maryland well over the past decade by achieving significant energy savings for the benefit of residents. The EmPOWER Utilities have successfully administered energy efficiency and conservation programs that have, collectively, surpassed the energy efficiency goals set by law. The energy efficiency programs have reduced energy consumption and energy demand in the State, and evaluation of the EmPOWER Program shows that the portfolio has provided benefits in excess of the costs. As we prepare for the final three-year cycle of the existing mandate, we need to be cognizant of uncollected program costs that have accrued in the current structure of EmPOWER.

The cost recovery mechanism in EmPOWER Maryland has undergone little substantive changes over the years. In recent years, the amortization schedule has resulted in escalating cost—inclusive of the accrued interest—and is now in excess of \$820 million. Given the existing unamortized program costs, the Maryland Energy Administration ("MEA") presents analysis of two performance incentive mechanisms that would eliminate the uncollected program costs over 10 years. Due to the impacts of COVID-19 on Maryland ratepayers and the broader economy, MEA does not recommend implementation of the mechanisms at this time but presents the analysis for the Commission's consideration once the impacts of COVID-19 have subsided. The analysis builds on the current structure of the EmPOWER program with the addition of a performance mechanism that seeks to reduce costs to ratepayers by incentivizing efficiency in spending and begins the process towards aligning program costs and revenue collected annually. The effect of aligning program costs and revenues collected is a reduction of interest paid over time. In the cost recovery mechanism, a reduction of the interest costs can be achieved by reducing the interest rate applied to the uncollected program costs or by aligning program costs and revenue over time to reduce and eventually eliminate the unamortized balance. The latter, as analyzed, would reduce the unamortized balance over a period of 10 years. Once eliminated, the EmPOWER Program costs would be expensed on an annual basis, and any program costs that are not recovered in the program year would be recovered in the surcharge through the true-up process. The estimated savings over the 10-year period would be over \$150 million. As we contemplate the future of energy efficiency in the State beyond 2023, performance incentives are one avenue by which cost reduction may be sought.

The EmPOWER Program performance has generated questions about the need for incentives in the energy efficiency space in Maryland. The introduction of a performance incentive mechanism has been questioned by stakeholders on the basis that it will increase cost to ratepayers; utilities are already incentivized, and the desired outcomes are being achieved in the Program, among other reasons. Currently, there are areas in the structure of EmPOWER Maryland that can be addressed by a performance incentive mechanism to continue supporting the State's energy efficiency goals by adjusting risk, lowering costs, or increasing benefits to ratepayers, while providing an opportunity for utilities to earn their authorized rate of return. Performance incentive mechanisms can reduce long-run costs to ratepayers and adjust the risk of achieving the energy savings goals by correlating the rate of return received on energy efficiency spending with the attainment of the energy savings goals.

The investigation of the unamortized program costs in EmPOWER was undertaken prior to the spread of the COVID-19 pandemic which has impacted the livelihood of residents and the operations of business in the state of Maryland and across the globe. Preliminary economic indicators suggest that assumptions about electricity consumption and customer growth, among others, may not hold. The extreme and unforeseen circumstances have affected ratepayers' ability to pay utility bills, and that may place cost recovery at risk for the utilities. When additional information about the effects of the pandemic on revenue, rates, and ratepayers' behaviors is available, further assessment of the

performance incentive mechanisms and bill analysis may be warranted. Therefore, MEA does not recommend the adoption or implementation of performance incentive mechanisms in the 2021-2023 program cycle of EmPOWER.

INTRODUCTION

MEA has engaged Oculus CAS, LLC ("Oculus") to conduct an analysis of the unamortized program costs that have accrued under the EmPOWER Maryland program since its inception in 2008. Two performance incentive mechanisms for financing the uncollected balance, in the future, are presented, including performance requirements that promote increased efficiency and increased benefits to ratepayers.

EmPOWER was codified by the EmPOWER Maryland Energy Efficiency Act of 2008 to promote energy efficiency and conservation in the State of Maryland, with a specific goal of reducing per capita electricity usage by 15% between 2008 and 2015. In 2017 the Governor and Legislature extended EmPOWER until 2023 with a new set of goals to further energy efficiency and conservation. To achieve its goals, EmPOWER establishes a regulatory framework that coordinates the efforts of Utility Companies toward a set of common goals as they deliver service to residents and businesses. Under the direction of the State of Maryland Public Service Commission, there are presently six (6) Utility Companies¹ (the "EmPOWER Utilities") actively engaged in EmPOWER:

- 1) Baltimore Gas and Electric ("BGE")
- 2) Delmarva Power and Light ("DPL")
- 3) Potomac Edison ("PE")
- 4) Potomac Electric Power Company ("PEPCO")
- 5) Washington Gas Light ("WGL")
- 6) Southern Maryland Electric Cooperative ("SMECO")

MEA plays a critical role in overseeing EmPOWER on behalf of the State of Maryland. MEA regularly coordinates and convenes EmPOWER stakeholders, presents testimony to the Public Service Commission, and conducts analysis to promote continued improvement of EmPOWER. In addition to its role with EmPOWER, MEA oversees a broad range of initiatives on behalf of the State of Maryland, including sustainability, climate change, alternative fuels and technologies, while also providing advice to the Governor, the Legislature, local governments and other State agencies.

The financing necessary to achieve EmPOWER's energy efficiency and conservation goals is provided by the EmPOWER Utilities and recovered through a customer surcharge added to monthly utility bills within the respective utility service areas. When EmPOWER was created in 2008, the program's financing model was designed to minimize the impact of the program's start-up expenses on ratepayers. To that end, the EmPOWER Utilities were directed to self-finance Program Costs through a 5-year amortization structure subject to an approved rate of return on unpaid Program Costs.

¹ The Maryland Department of Housing and Community Development is designated as the sole provider of energy efficiency programs for limited income ratepayers in each EmPOWER Utility's service area with an allocation of funds based on the number of qualifying ratepayers.

Since the program's inception in 2008, the EmPOWER Utilities have accumulated uncollected program costs of varying amounts associated with achieving the goals of EmPOWER. As of the beginning of 2020, the total unamortized program costs of EmPOWER was over \$822 million.

In early 2019, the Public Service Commission invited MEA to co-lead the Cost Recovery Work Group with the mandate to examine: "1) the appropriate rate of return for the EmPOWER programs; 2) the potential surcharge and ratepayer impacts of adjusting the amortization period for a portion of or the entire suite of programs; 3) the potential surcharge and ratepayer impacts of recovering programs through a performance-based cost recovery methodology; and 4) the potential transition plans from the current surcharge structure to another."²

The Cost Recovery Work Group included representatives of MEA, the EmPOWER Utilities, staffs of the Public Service Commission and the Office of People's Counsel, and other Stakeholders to examine financing models, incentives, and other mechanisms to minimize costs of energy efficiency investments in preparation for the 2021-2023 EmPOWER program cycle. A key assumption of this analysis presented herein is that the EmPOWER program or some other form of utility-administered energy efficiency program continues by law beyond the 2023 time frame. The report analyzes the impact of different approaches to handling the uncollected program costs and future program costs over a 10-year period.

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² see PSC Case 9494, Mail Log #223596, January 15, 2019.

IDENTIFICATION OF THE UNAMORTIZED EMPOWER BALANCE

Table I-A lists the 2020 EmPOWER Tariff filings with the Public Service Commission from each of the six (6) EmPOWER Utilities were reviewed.

Table I-A

Utility Finance	cial Data - PSC	Filings - Case 9494	
PSC Item	PSC Maillog	Utility	Date
171	227417	Washington Gas	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Edison	11/25/2019
181	227547	BGE	11/18/2019

The data in the filings were used to create a profile of the current financial structure of the EmPOWER program for each of the EmPOWER Utilities. Since each of the EmPOWER Utilities submits Tariff filings in a different format, it is necessary to create a consistent format for presenting and analyzing this information in a summarized fashion.

Table I-B below provides a Summary of the Unamortized Balance as well as other key program metrics for calendar year 2020 based on the Tariff filings.

Table I-B

2020 EmPower Sumi	mai	ry: Residentia	al a	nd Comm	erc	ial			
Utility		Program Cost	A	mortization	ι	Inamortized Balance	R	eturn to Utility	WACC/Rate of Return
BGE	\$	107,630,501	\$	101,362,026	\$	329,929,427	\$	22,741,534	9.51%
DPL	\$	27,487,526	\$	20,173,758	\$	57,827,006	\$	3,591,057	8.57%
PEPCO	\$	79,106,442	\$	67,987,733	\$	191,575,983	\$	12,892,619	9.29%
PE	\$	51,005,647	\$	30,945,308	\$	157,131,195	\$	10,354,946	9.09%
SMECO	\$	24,436,952	\$	19,036,473	\$	53,510,693	\$	3,274,854	6.12%
WGL	\$	11,451,160	\$	5,004,181	\$	32,433,352	\$	2,261,440	9.62%
Totals	\$	301,118,228	\$	244,509,479	\$	822,407,656	\$	55,116,450	9.25%

The Unamortized Balance across all six (6) EmPOWER Utilities is estimated at \$822,407,656 as of the beginning of calendar year 2020.

The table above is a summary extracted from a series of seven (7) spreadsheets included in this report. There is one spreadsheet for each of the six (6) EmPOWER Utilities, and a summary spreadsheet that combines key metrics to present a complete picture of EmPOWER. These spreadsheets are included as Appendix 1 to this report.

The spreadsheets in Appendix 1 establish a baseline year from which future year projections/options discussed later in this Report were extrapolated. The spreadsheet format provides the ability to easily adjust assumptions and evaluate the financial impact of various restructuring options.

The Table I-C below provides an overview of the key data points in each spreadsheet.

Table I-C

Column Title	Description and Discussion
Year	2020 is the baseline year. Data is based on Tariff filings from late 2019 by utilities as referenced in each spreadsheet
Program Cost	Estimated cost for all program activities in 2020. Annual Costs are estimated at the beginning of the year. Since costs are estimates, actual costs will vary. Projections of Program Costs beyond 2020 will vary based upon individual scenarios. The analysis assumes that program costs will remain at 2020 estimated levels for future years.
Amortization	As a general matter, it is assumed that 1/5 of each year's approved Program Cost (including the Current Year) is to be amortized in the Current Year; however, practical implementation may not allow 1/5 of each year's program costs to be amortized annually for each utility. Utilities have differing approaches to detailing amortization of costs in their Tariff filings.
	Ratepayers are obligated to cover Amortization in the Current Year, not the entire Program Cost for the Current Year. This can lead to distortions between Amortization and Program Cost, with Amortization generally being lower than Program Cost, in which case the Unamortized Balance typically increases on a year-over-year basis.
Unamortized Balance	Presented with balance as of beginning of year, and reflects cumulative uncollected program costs carried by each Utility. The Unamortized Balance reflects the cumulative differential between historical Program Costs and Amortization. Projections going forward are calculated as follows: [(Prior Year Unamortized Balance) + (Current Year Program Costs) – (Current Year Amortization)]
Return to Utility	Utilities' Return is calculated as follows: [(Unamortized Balance) * (WACC/Rate of Return) * (72.48%)] The percentage multiplier adjusts return to utilities based on current Federal and State tax rates to capture the impact of deferred taxes on the Unamortized Balance. That is, the future tax obligations of ratepayers are removed prior to the calculation of returns.
Utility WACC / Rate of Return	Presented on a pre-tax basis. Varies by Utility. The applicable Federal and State combined tax rate is presented in each spreadsheet. WACC (Weighted Average Cost of Capital) is approved by the Public Service Commission for utilities and is equal to the approved Rate of Return for EmPOWER programs. In the analysis presented herein (see Section VI), the Rate of Return is adjusted and differs from the WACC.
Net Operating Costs (Current Year Expense)	Some EmPOWER Utilities offer Demand Response Programs that operate in an "expensing mode" where current year operating costs are included in the

	calculation of required Ratepayer Revenues. While these are technically a type of
	program cost, they are presented separately due to the differing reporting
	associated with these initiatives. Based on a review of Tariff filings, the EmPOWER
	Utilities with Demand Response Programs presented in this fashion are BGE, DP&L,
	PEPCO, and SMECO.
Federal Tax Credit	Several EmPOWER Utilities' Tariff filings indicate tax credits for future years which
	act to reduce the revenue necessary from Ratepayers. These tax credits are
	assumed to end at future dates as noted in respective Tariff filing.
Wholesale Revenue	Several EmPOWER Utilities' Tariff filings indicate additional revenue from various
	sources such as PJM, etc. which act to reduce the revenue necessary from
	Ratepayers. The analysis assumes these revenues will remain at 2020 estimated
	levels for future years.
True Up	EmPOWER Utilities make adjustments to correct imbalances due to actuals varying
	from projections for Program Costs, Ratepayer Revenues, etc. each year. The True-
	up process is expected to continue going forward. In the performance incentive
	mechanisms, the True Ups are used to reconcile performance and incentives
	medianisms) the fractops are asea to resonant performance and meetinges
Ratepayer Revenue	Total revenue that must be paid each year by ratepayers towards Amortization, Net
Requirement	Operating Costs, and Return to Utility, with adjustments made for Federal Tax
Requirement	Credits, Wholesale Revenue, and True Up. Formula is as follows:
	[(Amortization) + (Return to Utility) + (Net Operating Costs) – (Federal
	Tax Credits) – (Wholesale Revenue) +/ – (True Up)]
	Tax credits/ (Wholesale Nevende) // (True op/)
Projected Sales (kWh /	Projected total electricity sales or gas sales (in the case of WG&L) are based on
Therm)	2020 Utility Company estimates. Projections beyond 2020 assume that Sales will
mermy	remain flatlined due to balancing impact of: 1) increasing energy efficiency versus
	2) increasing population and household/business formation.
	2) mercusing population and nouschola/business formation.
Ratepayer Surcharge	Surcharge per kWh or Therm (for WG&L) associated with EmPOWER program per
, ,	year. Formula is as follows:
	[(Ratepayer Revenue) / {Projected Sales)]
Average Usage/Month per	For consistency across all EmPOWER Utilities, it is assumed that ratepayers will use
Ratepayer	1,000 kWh per month. This is a midpoint in the range of assumptions included in
	the various Tariff filings. Assumption for WG&L gas accounts is 120 Therms per
	month based on total number of residential and commercial accounts.
	Note: as indicated above, it is assumed that actual per ratepayer consumption will
	decline in future years, but will be offset by new household/business formation.
	Accordingly, the average per month figure in this analysis is held constant to allow
	for easier analysis of various options, and should not be viewed as an assumption
	of actual per household energy usage on a year-over-year basis.
	or actual per mousehold effectly asage on a year over year susis.
Estimated Monthly Bill	By applying the Ratepayer Surcharge to the average consumption, a monthly
Impact per Ratepayer	estimate of billings impacts associated with the EmPOWER program is derived.
past par natepayer	Formula is as follows:
	[(Ratepayer Surcharge) * (Average Usage/Month per Ratepayer)]
	[(archayer saremarge) (Arterage saage/month per matchayer)]
Estimated Annual Bill	The Monthly Bill Impact is multiplied to reflect an annual impact figure for the
Impact per Ratepayer	EmPOWER program. Formula is as follows:
land har ingeled a.	[(Estimated Monthly Bill Impact per Ratepayer) * (12)]
	[(

II. CURRENT PROGRAM COST STRUCTURE EFFECTIVENESS EVALUATION

Maryland's EmPOWER Program receives high marks at the national level for its energy efficiency and conservation outcomes. ACEEE's "2019 State Energy Efficiency Scorecard" issued in October 2019 placed Maryland in the top 10 nationwide. ACEEE's report noted:

"Maryland is this year's most improved state. Utility efficiency programs, delivered through the EmPOWER Maryland initiative, have steadily evolved in recent years, spurred by robust legislative savings targets."

Within the context of this robust programmatic performance, this report examines the financial structure of EmPOWER with a specific focus on the unamortized program costs that have accrued during the program's tenure.

MEA, the Public Service Commission, the Office of People's Counsel and other stakeholders all play an important role in ensuring that EmPOWER's goals are met, and have done an excellent job by most measures in terms of program performance. A similar level of attention to the financial structuring and incentives of EmPOWER appears to be a prudent area for increased focus.

EmPOWER's Financial Structure and Incentives

EmPOWER's financial structure is relatively unique. The long-standing use of an Amortization model for financing Program Costs is shared with only a few other States (Illinois, New Jersey, New York and Utah). Amortization is the Cost Recovery model used by EmPOWER Utilities to recover their investments in energy efficiency and conservation. As detailed above, the ratio of uncollected program costs to annual Program Cost for EmPOWER is rapidly approaching 3:1.

The most obvious deficiency in the current Amortization model is that there is no mechanism built into the program to repay the Unamortized Balance. Also, there is no direct relationship between the Revenue realized by the EmPOWER Utilities and the energy efficiency/conservation outcomes of the EmPOWER program. Therefore, while EmPOWER's program outcomes are robust, they are being achieved without a feedback mechanism to their long-term cost.

While EmPOWER could theoretically transition to an expensing mode whereby annual Program Costs are paid entirely from current year's Ratepayer Revenues, this would be an extensive and expensive process. The existing Unamortized Balance would need to be repaid, and a new model for delivering a return to the Utilities would need to be accepted by all parties. As a side note, the Demand Response Program component of EmPOWER (which makes up a small portion of overall activity) is already performing in an expensing mode for several of the EmPOWER Utilities.

Performance-Based Incentives

EmPOWER's program design does not include a performance-based incentive component. And while there is little consensus to be found among the primary stakeholders in the Cost Recovery Work Group, the one area where they generally coalesce is the value of exploring performance-based incentives. While the statutory framework of EmPOWER creates strong performance goals, there is no financial incentive built into the program to reward/penalize EmPOWER Utilities for their overall level of performance.

As noted above, there is no linkage between the energy efficiency and conservation outcomes and the return earned by the EmPOWER Utilities. Preservation of this revenue decoupling feature of the program is arguably quite important, as it removes the incentive for the EmPOWER Utilities to promote increased energy usage or, even worse, punish efficiency measures. That said, an energy efficiency program that operates without regard to performance could run afoul of its own set of unintended consequences.

The States that generally receive higher rankings from ACEEE than Maryland all have performance-based incentive structures, though it is also true that many States that rank worse than Maryland also have such incentive structures. As a starting point, three (3) States have performance-based experiences that are worth further examination: 1) Illinois, 2) New Jersey, and 3) Massachusetts.

Illinois allows utilities to realize a return on unrecovered costs (like Maryland). The performance incentivize element of the Illinois approach applies a Rate of Return / WACC on the unrecovered cost. Specifically, the return on equity (ROE) component of the Rate of Return / WACC is adjusted as summarized in the table below prepared by ACEEE. Each utility operates with a separate structure that incentivizes performance based on percentage achievement of pre-set goals.

Chart II-A

Return on equity for achievement of energy efficiency goals

Utility	Percentage of goal achieved	ROE	Percentage of goal achieved	ROE
Years	20	18-2025	20	026-2030
	≤75%	Minus 200 basis points	≤ 66%	Minus 200 basis points
G 71	More than 75%, less than 100%	Minus 8 basis points per % below goal	More than 66%, less than 100%	Minus 8 basis points per % below goal
ComEd	100% or more, less than 125%	Plus 8 basis points per % above goal	100% or more, less than 134%	Plus 8 basis points per % above goal
	≥125%	Plus 200 basis points	≥ 134%	Plus 200 basis points
	≤ 84.4%	Minus 8 basis points per % below goal	<100%	Minus 6 basis points per % below goal
Ameren	More than 84.4%, but less than 100%	No change in basis points	100%	No change in basis points
	≥100%	Plus 8 basis points per % above goal	>100%	Plus 6 basis points per % above goals

Basis point reductions and increases are capped at 200 in all the cases presented above.

Source: Rachel Gold, ACEEE Letter to Maryland Public Service Commission, April 26, 2019. ML: 224954

In January 2020, the New Jersey Board of Public Utilities (NJBPU) released "Energy Efficiency Transition: Cost Recovery Mechanism Draft" for public and stakeholder comment, and issued a final order on June 10, 2020³. Like Illinois and Maryland, New Jersey is one of the few States which permit a return on unrecovered costs. The release of this draft is the latest step by the NJBPU to add a performance-based mechanism to their energy efficiency programs. While New Jersey does not rank as highly as Maryland in ACEEE's Scorecard rankings, their exploration of a performance-based incentive structure offers an opportunity for Maryland to observe a transition in progress. As illustrated below, New Jersey is exploring options to set the Rate of Return / WACC realized by the Utilities in a manner that is reflective of achieving performance goals.

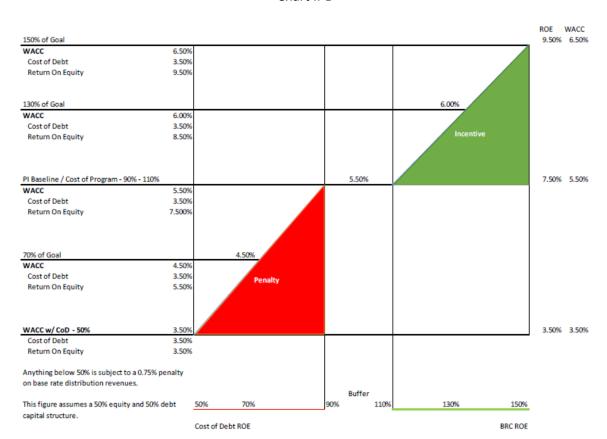


Chart II-B

Source: "New Jersey Board of Public Utilities – Energy Efficiency Transition: Cost Recovery Mechanism Draft – Draft for Public Comment, January 22, 2020. Page 9, Figure 2.

Massachusetts, which regularly rates near the top of ACEEE's Scorecard, operates with both broad energy efficiency reduction goals (like EmPOWER) as well as a financial incentive pool that is distributed

³ Full order available at: https://www.nj.gov/bpu/pdf/boardorders/2020/20200610/8D--Order%20Directing%20the%20Utilities%20to%20Establish%20Energy%20Efficiency%20and%20Peak%20Demand% 20Reduction%20Programs.pdf

to utilities based on their ability to achieve specific policy objectives⁴. During the 2016-2018 period, \$100 million was set aside (approximately 5% of total program expenses) for distribution for achieving electricity savings goals, and \$18 million (3% of total program expenses) for gas savings goals. ACEEE has noted that these incentive pools have resulted in an increased focus on energy efficiency as a core corporate priority. New priorities have been established for the 2019-2021 program years.

Rate of Return / WACC

The return earned by the EmPOWER Utilities is an area of extensive back-and-forth among members of the Cost Recovery Work Group. While there may be near consensus around pursuing a performance-based incentive structure, there appears to be little alignment on the topic of making changes to the Rate of Return / WACC.

The position of the EmPOWER Utilities on this topic is simple: the Status Quo is working. The program is delivering strong outcomes, so any changes to the financial incentives built into EmPOWER risk upending Maryland's programmatic outperformance.

That said, the financial benefits of the program to the EmPOWER Utilities are undeniable. With annual cumulative returns generated at their approved Rate of Return / WACC in excess of \$50 million (after taxes) stretching into the future, the EmPOWER Utilities would, arguably, be acting counter to their obligation to shareholders if they were to unilaterally agree to a reduction in return on energy efficiency investments without the appropriate incentives or opportunities to earn additional returns.

The opportunity to earn the of Rate of Return / WACC on the Unamortized Balance on a year-to-year basis is certainly a powerful incentive for the EmPOWER Utilities to continue to pay attention to EmPOWER, though this attention likely does not extend to pursuing efforts to reduce the Unamortized Balance.

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⁴ There are notable differences in the structure of the programs in Massachusetts; namely, statewide implementation and mandated performance incentives.

III. COST RECOVERY WORK GROUP EXAMINATION

The Public Service Commission invited MEA to co-lead the Cost Recovery Work Group with the mandate to examine: "1) the appropriate rate of return for the EmPOWER programs; 2) the potential surcharge and ratepayer impacts of adjusting the amortization period for a portion of or the entire suite of programs; 3) the potential surcharge and ratepayer impacts of recovering programs through a performance-based cost recovery methodology; and 4) the potential transition plans from the current surcharge structure to another."⁵

The Cost Recovery Work Group included representatives of MEA, the EmPOWER Utilities, staffs of the Public Service Commission and the Office of People's Counsel to examine financing models, incentives and other mechanisms to minimize costs of energy efficiency investments in preparation for the 2021-2023 EmPOWER program cycle. As noted above, a key assumption of this analysis is that the EmPOWER program or some other form of utility-administered energy efficiency program continues by law beyond the 2023 timeframe. Due to the COVID-19 pandemic, MEA does not recommend the adoption or implementation of performance incentive mechanisms in the 2021-2023 program cycle of EmPOWER.

The Cost Recovery Work Group issued a report on April 15, 2019. It is important to note that the scope of the EmPOWER financial analysis included in the April 15, 2019 Work Group report is more narrowly focused than the analysis presented in this report. Specifically, the analysis presented herein includes the following additional information which was not included in the Work Group's analysis:

- Washington Gas and Light data
- Commercial and Industrial data
- Demand Response Programs data

The inclusion of this additional financial data is material. For instance, the overall unamortized balance of program costs associated with the EmPOWER Utilities in the Work Group analysis was approximately \$280 million, while (as noted above) this analysis identifies a total unamortized balance of program costs of nearly \$822 million. The totals of other key metrics (i.e. Program Costs, Utility Revenues, Ratepayer Surcharges, etc.) are also higher.

The Cost Recovery Work Group Report detailed three (3) primary options for restructuring the EmPOWER unamortized program costs. On the pages that follow is a summary, update and assessment of these alternatives based on the review of the current Tariff filings.

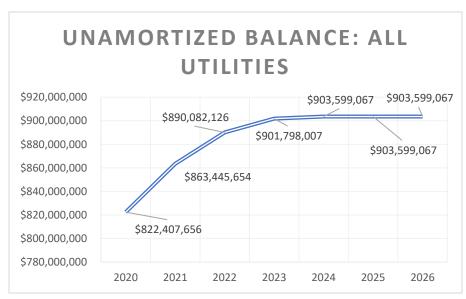
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⁵ see PSC Case 9494, Mail Log #223596, January 15, 2019.

<u>Cost Recovery Work Group: Option 1</u> -- Maintain the financial structure of EmPOWER in its current form. This is also referred to as the Status Quo option.

Baseline 2020 data is projected forward using existing protocols and assumptions. In this analysis, it is assumed that Program Costs and Amortization will achieve equilibrium within several years and EmPOWER will stabilize with the Unamortized Balance and Ratepayer Impact reaching a plateau by 2025. The graphs below illustrate this trend.

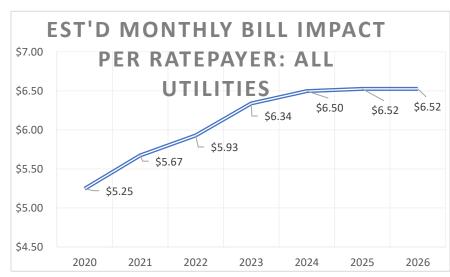




This approach maintains the status quo with an important assumption that EmPOWER stakeholders will bring annual Program Costs into parity with annual Amortization of uncollected program costs. In past years, the steady increase in the Unamortized Balance over the years is the result of the misalignment of Program Costs and

Amortization. This approach results in a steady increase in Unamortized Balance and Ratepayer surcharges in the years ahead, reaching a plateau of \$903 million and \$6.52 per month, respectively.

Graph III-B



Going forward, this approach continues to enable the Utilities to earn a Return on the balance of Unamortized program costs at their established Rate of Return/WACC. The cumulative sum of this Rate of Return is significantly higher than alternatives. There is no effort to reduce the Unamortized Balance in

this option. The attached spreadsheet illustrates further details of this option.

Utility Financia	Utility Financial Data - PSC Filings - Case 9494	gs - Case 9494	
PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

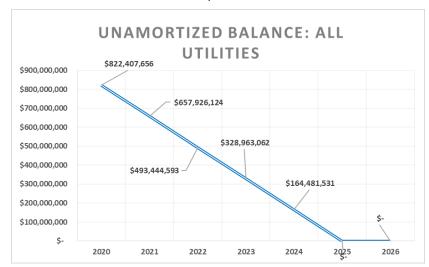
Option 1: Status Quo Work Group Proposal Updated

	6.26	\$ 4,016,004,576 \$	τ.					\$ 601,064,755				10 Year Total
\$ 78.30	6.52 \$	\$ 412,110,346 \$	1	(11,219,529) \$	· \$	\$ 70,324,473 \$	9.23%	903,599,067 \$ 60,471,663	\$ 903,599,067	\$ 301,118,228 \$	\$ 301,118,228	2030
\$ 78.30	6.52 \$	\$ 412,110,346 \$	· •	(11,219,529) \$	- \$	\$ 70,324,473 \$	9.23%	\$ 60,471,663	\$ 903,599,067	\$ 301,118,228 \$	\$ 301,118,228	2029
\$ 78.30	6.52 \$	\$ 412,110,346 \$	· ·	(11,219,529) \$	- \$	\$ 70,324,473 \$	9.23%	\$ 60,471,663	\$ 903,599,067	\$ 301,118,228 \$	\$ 301,118,228	2028
\$ 78.30	6.52 \$	\$ 412,110,346 \$	· ·	(11,219,529) \$	- \$	\$ 70,324,473 \$	9.23%	\$ 60,471,663	\$ 903,599,067	\$ 301,118,228 \$	\$ 301,118,228	2027
\$ 78.30	6.52 \$	\$ 412,110,346 \$	· ·	(11,219,529) \$	- \$	\$ 70,324,473 \$	9.23%	\$ 60,471,663	\$ 903,599,067	\$ 301,118,228 \$	\$ 301,118,228	2026
\$ 78.30	6.52 \$	\$ 412,110,346 \$	· ·	(11,219,529) \$	- \$	\$ 70,324,473 \$	9.23%	\$ 60,471,663	\$ 903,599,067	\$ 301,118,228 \$	\$ 301,118,228	2025
\$ 77.95	6.50 \$	\$ 410,309,286 \$	· ·	(11,219,529) \$	- \$	\$ 70,324,473 \$	9.23%	\$ 60,471,663	\$ 903,599,067	\$ 299,317,168 \$	\$ 301,118,228	2024
\$ 76.05	6.34 \$	\$ 400,275,774 \$	· ·	(11,219,529) \$	- \$	\$ 70,324,473 \$	9.23%	\$ 60,352,973	\$ 901,798,007	\$ 289,402,347 \$	\$ 301,118,228	2023
\$ 71.14	5.93 \$	374,458,007 \$	· ·	(11,219,529) \$	(10,127,799) \$	\$ 70,324,473 \$	9.24%	\$ 59,583,595	\$ 890,082,126	\$ 274,481,756 \$	\$ 301,118,228	2022
\$ 68.07	5.67 \$	358,299,435 \$	· ·	(11,219,529) \$	(10,127,799) \$	\$ 70,324,473 \$	9.24%	\$ 57,826,550	\$ 863,445,654	\$ 260,080,230 \$	\$ 301,118,228	2021
\$ 62.95	5.25 \$	331,348,401 \$	(8,670,185) \$	(11,219,529) \$	(10,127,799) \$	\$ 70,324,473 \$	9.25%	\$ 55,116,450	\$ 822,407,656	\$ 244,509,479 \$	\$ 301,118,228	2020
Ratepayer	Ratepayer	(12) * (13)	True Up	Revenue	Credit	Year Expense)	Return	(.7248)	(Prior)+(2)-(3)	Amortization	Program Cost	Year
Impact per	Impact per	Requirement I		Wholesale	Federal Tax	Costs (Current	Utility (4)*(6)* WACC / Rate of	Utility (4)*(6)*	Balance			
Annual Bill	Monthly Bill	Revenue N				Net Operating	Imputed Utility	Return to	Unamortized			
Estimated	Estimated	Ratepayer										
(13)	(12)	(11)	(10)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)

Cost Recovery Work Group: Option 2 -- OPC Staff proposed eliminating the Unamortized Balance and migrating EmPOWER to an "expensing mode" whereby any amortization of current year Program Costs is eliminated. OPC proposed a 5-year plan for paying off the -uncollected program costs. Additionally, OPC proposed a significant reduction in Utility returns by reducing the Rate of Return from a weighted average of approximately 9% to 4%. (Note: OPC Staff updated their recommendation in early 2020 in light of the impact of the COVID-19 pandemic and is currently working on additional analysis, though the original recommendation is retained in this report to establish a working baseline for comparison.)

Changing the Rate of Return to the EmPOWER Utilities does not reduce the Unamortized Balance any faster, though it does have an impact on the annual Ratepayer Surcharge due to the significant decrease in returns to the utilities.

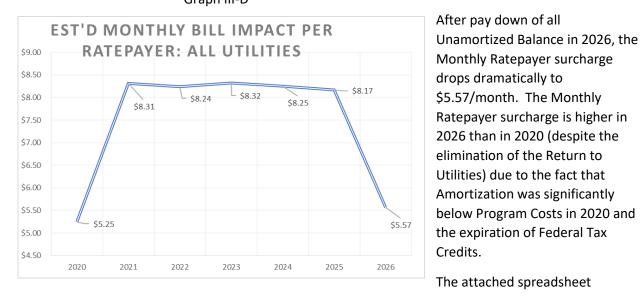
Graph III-C



The reduction in the Rate of Return / WACC to 4.0% from a range of 6.12% - 9.62% would be viewed quite negatively by the EmPOWER Utilities. Additionally, with the elimination of Unamortized Balance, the Return to Utilities reduces to zero after several years.

Due to the accelerated repayment of Unamortized Balance the Monthly Ratepayer

surcharge during the paydown years goes up to \$8.32/month in 2023 versus the 2020 estimate of \$5.25 / month, an increase of nearly 60%. Graph III-D



The attached spreadsheet

illustrates further details of this option.

otility Financia	Otility Financial Data - PSC Filings - Case 9494	'S - Case 9494	
PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

_	SMECO	WG&L PEPCO	Utility
Ed	8.57%	%L 9.62%	WACC/Rate of
	CO 6.12%	O 9.29%	ty Return

Option 2: OPC Work Group Proposal Updated

(5)

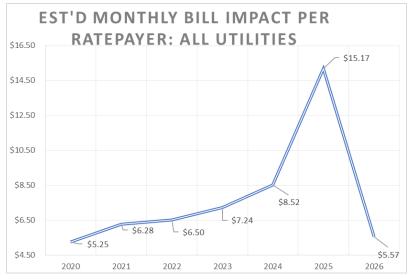
(6)

(12)

	76	\$ 6.76	\$ 4,366,279,740	\$-						\$ 47,740,852		\$		10 Year Total
66.81	57 \$	\$ 5.57	351,638,683	· •	(11,219,529) \$	· •	70,324,473 \$	↔	4.00%	٠,	,	\$ 301,118,228 \$	\$ 301,118,228	2030
66.81	57 \$	\$ 5.57	351,638,683	· \$	(11,219,529) \$	· \$	70,324,473 \$	⋄	4.00%		,	\$ 301,118,228 \$	\$ 301,118,228	2029
66.81	57 \$	\$ 5.57	351,638,683	- \$	(11,219,529) \$	· \$	70,324,473 \$	ş	4.00%		,	\$ 301,118,228 \$	\$ 301,118,228	2028
66.81	57 \$	\$ 5.57	351,638,683	· \$	(11,219,529) \$	· \$	70,324,473 \$	ş	4.00%	٠	,	\$ 301,118,228 \$	\$ 301,118,228	2027
66.81	57 \$	\$ 5.57	351,638,683	· \$	(11,219,529) \$	· \$	70,324,473 \$	⋄	4.00%		,	\$ 301,118,228 \$	\$ 301,118,228	2026
98.06	17 \$	\$ 8.17	516,120,214	- \$	(11,219,529) \$	· \$	70,324,473 \$	ş	4.00%		,	\$ 465,599,759 \$	\$ 301,118,228	2025
98.96	25 \$	\$ 8.25	520,894,299	- \$	(11,219,529) \$	· \$	70,324,473 \$	ş	4.00%	\$ 4,774,085	164,481,531	\$ 465,599,759 \$	\$ 301,118,228	2024
99.87	32 \$	\$ 8.32	525,668,385	· \$	(11,219,529) \$	· \$	70,324,473 \$	ş	4.00%	\$ 9,548,170	328,963,062	\$ 465,599,759 \$	\$ 301,118,228	2023
98.85	24 \$	\$ 8.24	520,314,671	· \$	(11,219,529) \$	(10,127,799) \$	70,324,473 \$	⊹	4.00%	\$ 14,322,256	493,444,593	\$ 465,599,759 \$	\$ 301,118,228	2022
99.76	31 \$	\$ 8.31	525,088,756	· \$	(11,219,529) \$	(10,127,799) \$	70,324,473 \$	⊹	4.00%	\$ 19,096,341	657,926,124	\$ 465,599,759 \$	\$ 301,118,228	2021
62.95	25 \$	\$ 5.25	331,348,401	(8,670,185) \$	(11,219,529) \$	(10,127,799) \$	70,324,473 \$	\$	9.25%	\$ 55,116,450	822,407,656	\$ 244,509,479 \$	\$ 301,118,228	2020
Ratepayer		Ratepayer	(12) * (13)	True Up	Revenue T	Credit	Year Expense)	Yea	of Return	(4)*(6)*(.7248)	(Prior)+(2)-(3)	Amortization (F	Program Cost	Year
Impact per		Impact per	Requirement		Wholesale	Federal Tax	Costs (Current		WACC / Rate	Utility	Balance			
Annual Bill		Monthly Bill	Revenue				Net Operating		Imputed Utility	Return to	Unamortized	_		
Estimated		Estimated	Ratepayer											

<u>Cost Recovery Work Group: Option 3</u> -- PSC Staff raised the option of a more gradual transition to an "expensing mode" with a gradual increase in the rate of Amortization from over a 5-year period (i.e. a Declining Amortization Schedule) to a point where the program costs are recovered on an annual basis.

Graph III-E

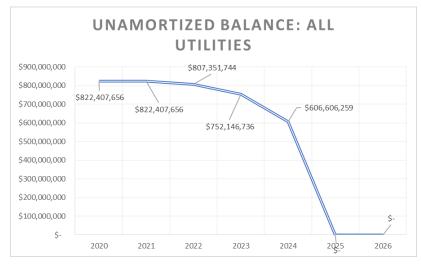


This proposal is somewhat similar to the OPC option, with a notable difference that the Utility Rate of Return is not reduced in the PSC Staff proposal.

The Unamortized Balance is paid down in a similar timeframe as the Cost Recovery Work Group: Option 2, but the rate of repayment increases dramatically in 2025. Due to the accelerated repayment of Unamortized Balance, the impact on the Monthly Ratepayer surcharge is significant during the

paydown years, with a spike in 2025 when the program makes a transition to expensing mode. In 2025, the Ratepayer surcharge increases to \$15.17/month from \$8.52/month the year before, an increase of 78%.

Graph III-F



After pay down of all Unamortized Balance in 2026, the Monthly Ratepayer surcharge drops dramatically to \$5.57/month. The Monthly Ratepayer surcharge is higher in 2026 than in 2020 (despite the elimination of the Return to Utilities) due to the fact that Amortization was significantly below Program Costs in 2020 and the expiration of Federal Tax Credits.

The attached spreadsheet illustrates further details of this option.

Utility Financia	Utility Financial Data - PSC Filings - Case 9494	ţs - Case 9494	
PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

							_
BGE	Potomac Ed	SMECO	DPL	PEPCO	WG&L	Utility	
9.51%	9.09%	6.12%	8.57%	9.29%	9.62%	Return	WACC/Rate of

Option 3: PSC Staff Work Group Proposal Updated

	\$ 6.98	4,518,899,973	₩.					\$ 200,361,085	\$			10 Year Total
\$ 66.81	\$ 5.57	351,638,683	, (A	(11,219,529) \$	\$	\$ 70,324,473	9.25%	\$.	\$ 301,118,228	\$ 301,118,228	2030
\$ 66.81	\$ 5.57	351,638,683	- \$	(11,219,529) \$	- \$	\$ 70,324,473	9.25%	\$·	⊹	\$ 301,118,228	\$ 301,118,228	2029
\$ 66.81	\$ 5.57	351,638,683	- \$	(11,219,529) \$	- \$	\$ 70,324,473	9.25%	\$·	⊹	\$ 301,118,228	\$ 301,118,228	2028
\$ 66.81	\$ 5.57	351,638,683	- \$	(11,219,529) \$	- \$	\$ 70,324,473	9.25%	\$	\$·	\$ 301,118,228	\$ 301,118,228	2027
\$ 66.81	\$ 5.57	351,638,683	- \$	(11,219,529) \$	- \$	\$ 70,324,473	9.25%	\$	\$·	\$ 301,118,228	\$ 301,118,228	2026
\$ 182.05	\$ 15.17	958,244,942	· \$	(11,219,529) \$	- \$	\$ 70,324,473	9.25%	\$ >	⊹	\$ 907,724,487	\$ 301,118,228	2025
\$ 102.19	\$ 8.52	537,887,230	· \$	(11,219,529) \$	- \$	\$ 70,324,473	9.26%	\$ 40,708,070	\$ 606,606,259	\$ 446,658,705	\$ 301,118,228	2024
\$ 86.87	\$ 7.24	457,269,041	· \$	(11,219,529) \$	- \$	\$ 70,324,473	9.25%	\$ 50,425,350	\$ 752,146,736	\$ 356,323,236	\$ 301,118,228	2023
\$ 78.02	\$ 6.50	410,678,010	· \$	(11,219,529) \$	\$ (10,127,799) \$	\$ 70,324,473	9.25%	\$ 54,111,215	\$ 807,351,744	\$ 316,174,139	\$ 301,118,228	2022
\$ 75.35	\$ 6.28	396,627,334	·	(11,219,529) \$	\$ (10,127,799) \$	\$ 70,324,473	9.25%	\$ 55,116,450	\$ 822,407,656	\$ 301,118,228	\$ 301,118,228	2021
\$ 62.95	\$ 5.25	331,348,401	(8,670,185) \$	(11,219,529) \$	\$ (10,127,799) \$	\$ 70,324,473	9.25%	\$ 55,116,450	\$ 822,407,656	\$ 244,509,479	\$ 301,118,228	2020
Ratepayer	Ratepayer	(12) * (13)	True Up	Revenue 1	Credit	Year Expense)	Return	(4)*(6)*(.7248)	(Prior)+(2)-(3)	Amortization	Program Cost Amortization	Year
Impact per	Impact per	Requirement		Wholesale	Federal Tax	Costs (Current	Return to Utility WACC / Rate of	Return to Utility	Balance			
Annual Bill	Monthly Bill	Revenue				Net Operating	Imputed Utility Net Operating		Unamortized			
Estimated	Estimated	Ratepayer										
(13)	(12)	(11)	(10)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)

Work Group Efforts in 2020

The Cost Recovery Work Group convened throughout the first half of 2020 continuing efforts to examine financing models, performance incentives, and other mechanisms to minimize costs of energy efficiency investments in preparation for the 2021-2023 EmPOWER program cycle. The Cost Recovery Work Group included representatives of MEA, the EmPOWER Utilities, staffs of the Public Service Commission and the Office of People's Counsel, and Advocates.

The Work Group submitted a report to the Public Service Commission on August 14, 2020. The report provided updated positions of the stakeholders on the appropriate rate of return, amortization period, and performance incentive mechanisms; among other topics. Since the report was issued, MEA continued the investigation of performance incentive mechanisms and does not recommend the adoption or implementation of performance incentive mechanisms in the 2021-2023 program cycle of EmPOWER.

The Work Group agreed to address amortization of the Behavior Programs and Utility Administrative costs. EmPOWER Utilities have proposed to recover the Behavior Program and Utility Administrative costs in the year incurred instead of collecting the costs over five years in the 2021-2023 EmPOWER Cycle Plans.

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⁶ Staff of the Public Service Commission - EmPOWER Cost Recovery Work Group Report EmPOWER Maryland Plans Case No. 9494 (ML 231480)

⁷ Maryland Public Service Commission Case No. 9648: THE 2021-2023 EMPOWER MARYLAND PROGRAM

IV. OPTIONS

This section of the report will build upon the three (3) options discussed in the previous section by presenting additional options for financing the Unamortized Balance associated with EmPOWER.

Options 1, 2 and 3 -- Comparing the Status Quo, OPC and PSC Proposals

To set the stage for the additional options, Table IV-A below summarizes some of the key metrics associated with the three (3) options presented in the previous section.

Table IV-A

	CR	WG	i Report Optio	ns	
	1		2		3
	Status Quo		OPC		PSC
Avg. Utility Return per Year	\$ 60,106,475	\$	4,774,085	\$	20,036,108
Opportunity to Earn WACC	9.23%		4.00%		9.23%
Avg. Ratepayer Surcharges per Year	\$ 401,600,458	\$	436,627,974	\$	451,889,997
Unamortized Balance/Debt in 2030	\$ 903,599,067	\$	-	\$	-
Maximum RatePayer Impact (month)	\$ 6.52	\$	8.32	\$	15.17
10-Year Avg Ratepayer Impact (month)	\$ 6.26	\$	6.76	\$	6.98
RatePayer Impact in 2030 (month)	\$ 6.52	\$	5.57	\$	5.57

A few highlights worth noting:

Status Quo: This option avoids dramatic changes to Ratepayer Surcharges that lead to rate spikes and delivers the lowest average Ratepayer Impact over the 10-year period. However, the Unamortized Balance remains high and is an ongoing burden for Ratepayers. Additionally, the 10-year stream of Utility Revenue is well above the other options.

OPC: This option repays 100% of Unamortized Balance. The Ratepayer Impact is moderated by a more than 50% cut in the Utility Rate of Return, but the average monthly impact over the 10-year period remains higher than the Status Quo.

<u>PSC Staff:</u> This option also repays 100% of Unamortized Balance. The Ratepayer Impact is the most pronounced with a significant spike and the highest average of the 10-year period.

Based on the review of the Status Quo, OPC and PSC Staff options, several principles are identified to inform additional options:

- Principle 1. Ratepayer spikes can be somewhat mitigated through the use of a 10-year timeframe (versus the 5-year timeframes used in the OPC and PSC Staff options) when repaying Unamortized Balance.
- Principle 2. A broader series of options for reduction in Utility Rate of Return should be explored.
- Principle 3. The incorporation of a Performance-Based Incentive should be examined to off-set reductions in the Utility Rate of Return, while simultaneously providing an incentive to achieve increased energy efficiency whereby the savings are allocated to the Ratepayers and Utilities.

Options 4a, 4b and 4c – Adjustments to Repayment Term and Utility Rate of Return

Three (3) additional options (4a, 4b and 4c) were analyzed which incorporate Principles #1 and #2, above. In all three of these options, the repayment of Unamortized Balance was spread over a 10-year period with complete repayment by 2030. The variable in these options was Utility Rate of Return on energy efficiency investments, which were examined at 8%, 7% and 6%, respectively.

The table below summarizes these options in comparison to the Status Quo, OPC and PSC Staff proposals.

Table IV-B

		CR	w.	i Report Optio	ns					Add	itional Option	ıs	
		1		2		3			4a		4b		4c
	_ :	Status Quo		OPC		PSC							
Avg. Utility													
Return per Year	\$	60,106,475	\$	4,774,085	\$	20,036,108		\$	25,286,892	\$	22,125,661	\$	18,943,709
Opportunity to				, ,					, , ,		· ·		
Earn WACC		9.23%		4.00%		9.23%			8.00%		7.00%		6.00%
Avg. Ratepayer													
Surcharges per Year	\$	401 600 459	۲	436,627,974	۲	451,889,997		\$	457,140,781	Ļ	4E2 070 EE0	۲	450 707 509
Unamortized	Ş	401,600,458	Ş	430,027,974	\$	451,009,997		Ş	457,140,761	Ş	453,979,550	\$	450,797,598
Balance/Debt													
in 2030	\$	903,599,067	\$	-	\$	-		\$	-	\$	-	\$	-
Maximum													
RatePayer													
Impact (month)	\$	6.52	\$	8.32	\$	15.17		\$	8.42	\$	8.35	\$	8.27
10-Year Avg													
Ratepayer Impact (month)	ہ	6.26	\$	6.76	\$	6.98		\$	7.06	\$	7.01	\$	6.97
	<u>ې</u>	0.20	Ş	0.76	Ş	0.98		Ş	7.06	Ş	7.01	Ş	0.97
RatePayer Impact in 2030													
(month)	\$	6.52	\$	5.57	\$	5.57		\$	5.57	\$	5.57	\$	5.57
(11101111)	٧	0.32	٧	5.57	٧	5.57	Ш	٧	ال.57	٧	5.57	٧	5.57

A few highlights worth noting:

- Options 4a and 4b deliver greater Utility Revenue over a 10-year period than the PSC Staff option even though the Rate of Return is lower. This is due to the longer term (10 years) for repayment of Unamortized Balance.
- The 10-year average Ratepayer Impact of Options 4a, 4b and 4c are in the same general range as the OPC and PSC Staff options.
- The maximum Ratepayer Impact of Options 4a, 4b and 4c are significantly lower than the PSC Staff scenario and in the same general range as the OPC scenario.

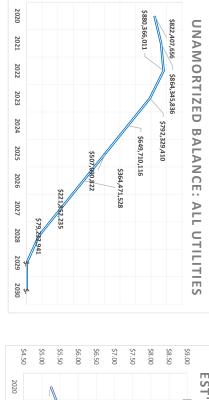
Spreadsheets which summarize Options 4a, 4b and 4c follow.

Utility Financial	Utility Financial Data - PSC Filings - Case 9494	s - Case 9494	
PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

	WACC/Rate of	
Utility	Return	Proposed
WG&L	9.62%	%00.8
PEPCO	9.29%	8.00%
DPL	8.57%	8.00%
SMECO	6.12%	8.00%
Potomac Ed	9.09%	8.00%
BGE	9.51%	8.00%

Option 4a: Longer Term Repayment Reduced ROR 8%

	\$ 7.06	\$ 4,571,307,811	\$						\$ 252,868,924	·			10 Year Total
\$ 66.80	\$ 5.57 \$	351,628,683	- \$	₩.	\$ (11,229,529)	·	\$ 70,324,473	8.00%	₹	·	\$301,118,228	\$ 301,118,228	2030
\$ 81.86	\$ 6.82 \$	430,861,624	· \$	₩.	\$ (11,229,529)	\$·	\$ 70,324,473	8.00%	₹ \$	₹	\$380,351,169	\$ 301,118,228	2029
\$ 94.77	\$ 7.90 \$	498,843,926	, \$	₩.	\$ (11,229,529)	·	\$ 70,324,473	8.00%	\$ 4,595,950	\$ 79,232,941	\$ 443,737,522	\$ 301,118,228	2028
\$ 96.35	\$ 8.03 \$	507,116,635	, \$	₩.	\$ (11,229,529)	S	\$ 70,324,473	8.00%	\$ 12,868,659	\$ 221,852,235	\$443,737,522	\$ 301,118,228	2027
\$ 97.92	\$ 8.16 \$	515,389,345	· \$	₩.	\$ (11,229,529)	\$	\$ 70,324,473	8.00%	\$ 21,141,368	\$ 364,471,528	\$ 443,737,522	\$ 301,118,228	2026
\$ 99.49	\$ 8.29 \$	523,662,054	· \$	₩.	\$ (11,229,529)	\$	\$ 70,324,473	8.00%	\$ 29,414,077	\$ 507,090,822	\$ 443,737,522	\$ 301,118,228	2025
\$ 101.06	\$ 8.42 \$	531,934,763	, \$	₩.	\$ (11,229,529)	S	\$ 70,324,473	8.00%	\$ 37,686,786	\$ 649,710,116	\$443,737,522	\$ 301,118,228	2024
\$ 92.26	\$ 7.69 \$	485,624,779	· \$	₩.	\$ (11,229,529)	\$	\$ 70,324,473	8.00%	\$ 45,959,495	\$ 792,329,410	\$ 389,154,829	\$ 301,118,228	2023
\$ 71.54	\$ 5.96 \$	376,546,814	· \$	₩.	\$ (11,229,529)	\$ (10,127,799)	\$ 70,324,473	8.00%	\$ 51,066,106	\$ 880,366,011	\$ 285,098,053	\$ 301,118,228	2022
\$ 66.44	\$ 5.54 \$	349,699,188	· \$	₩.	\$ (11,229,529)	\$ (10,127,799) \$	\$ 70,324,473	8.00%	\$ 50,136,484	\$ 864,345,836	\$ 259,180,048	\$ 301,118,228	2021
\$ 62.95	\$ 5.25	331,338,401	,670,185) \$	(8	\$ (11,229,529) \$	\$ (10,127,799) \$	\$ 70,324,473	9.25%	\$ 55,116,450	\$ 822,407,656	\$ 244,509,479	\$ 301,118,228	2020
Ratepayer	Ratepayer	(12) * (13)	ue Up	Tru	Revenue	Credit	Year Expense)	Return	(4)*(6)*(.7248)	(Prior)+(2)-(3)	Amortization	Program Cost	Year
Impact per	Impact per	Requirement			Wholesale	Federal Tax	Costs (Current	WACC / Rate of Costs (Current	Utility	Balance			
Annual Bill	Monthly Bill	Revenue					Net Operating	Imputed Utility Net Operating	Return to	Unamortized			
Estimated	Estimated	Ratepayer											
(13)	(12)	(11)	10)	(1)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)
				l									

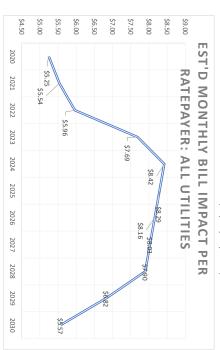


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\$200,000,000

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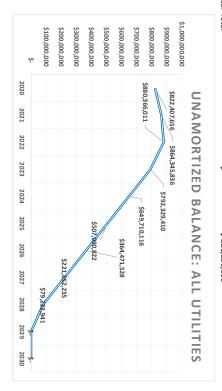


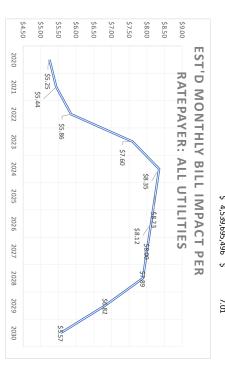
PSC Maillog	Utility	Date
227417	WG&L	11/18/2019
227502	PEPCO	11/15/2019
227501	DP&L	11/15/2019
227606	SMECO	11/22/2019
227637	Potomac Ed	11/25/2019
227547	BGE	11/18/2019
	PSC Maillog 227417 227502 227501 227606 227637 227547	ļ ,

	WACC/Rate of	
Utility	Return	Proposed
M88L	9.62%	7.00%
PEPCO	9.29%	7.00%
DPL	8.57%	7.00%
SMECO	6.12%	7.00%
Potomac Ed	9.09%	7.00%
RGF	9 51%	7 00%

otion 4b: Longer Term Repayment Reduced ROR 7%

(1) (2) (3) (4)	Unamortized	Balance	Year Program Cost Amortization (Prior)+(2)-(3)	2020 \$ 301,118,228 \$ 244,509,479 \$ 822,407,656	2021 \$ 301,118,228 \$ 259,180,048 \$ 864,345,836	2022 \$ 301,118,228 \$ 285,098,053 \$ 880,366,011		2023 \$ 301,118,228 \$ 389,154,829 \$ 792,329,410	\$ 301,118,228 \$ 389,154,829 \$ \$ 301,118,228 \$ 443,737,522 \$	\$ 301,118,228 \$ 389,154,829 \$ \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$	\$ 301,118,228 \$ 389,154,829 \$ \$ 901,118,228 \$ 443,737,522 \$ \$ 901,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$	\$ 301,118,228 \$ 389,154,829 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$	\$ 301,118,228 \$ 389,154,829 \$ \$ 901,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$	\$ 301,118,228 \$ 389,154,829 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 443,737,522 \$ \$ 301,118,228 \$ 380,351,169 \$
(5)	Return to	Utility	(4)*(6)*(.7248)	ı	\$ 55,116,450				w w w w	~~~~~~~~	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
(6)	Imputed Utility	WACC / Rate of	Return	9.25%		7.00%	7.00% 7.00%	7.00% 7.00% 7.00%	7.00% 7.00% 7.00% 7.00%	7.00% 7.00% 7.00% 7.00% 7.00%	7.00% 7.00% 7.00% 7.00% 7.00% 7.00%	7.00% 7.00% 7.00% 7.00% 7.00% 7.00%	7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00%	7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00%
(7)	Net Operating	Costs (Current	Year Expense)	\$ 70,324,473	¢ 70 274 472	> /0,324,4/3	\$ 70,324,473	\$ 70,324,473 \$ 70,324,473 \$ 70,324,473	\$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473	\$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473	\$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473	\$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473	\$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473 \$ 70,324,473	5 70,324,473 5 70,324,473 5 70,324,473 5 70,324,473 5 70,324,473 5 70,324,473 5 70,324,473 5 70,324,473
(8)		Federal Tax	Credit	\$ (10,127,799) \$	\$ (10 127 799) \$	7 (TO,121,133) 7	\$ (10,127,799) \$	\$ (10,127,799) \$ \$ \$ - \$	\$ (10,127,799) \$ \$ \$ - \$	\$ (10,127,799) \$	\$ (10,127,799) \$ \$ - \$ \$ - \$ \$ - \$	\$ (10,127,799) \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ (10,127,799) \$	\$ (10,127,799) \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
(9)		Wholesale	Revenue	(11,229,529) \$	(11,229,529) \$		(11,229,529) \$	(11,229,529) \$ (11,229,529) \$	(11,229,529) \$ (11,229,529) \$ (11,229,529) \$	(11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$	(11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$	(11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$	(11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$	(11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$ (11,229,529) \$
(10)			True Up	(8,670,185)										
(11) Ratepayer	Revenue	Requirement	(12) * (13)	\$ 331,338,401	\$ 343,431,405	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3/0,162,801	\$ 479,879,167	\$ 479,879,167 \$ 527,223,361	\$ 479,879,167 \$ 527,223,361 \$ 519,984,862	5 479,879,167 5 479,879,167 5 527,223,361 5 519,984,862 5 512,746,363	5 479,879,167 5 479,879,167 5 527,223,361 5 519,984,862 5 512,746,363 5 505,507,864	\$ 479,879,167 \$ 479,879,167 \$ 527,223,361 \$ 519,984,862 \$ 512,746,363 \$ 505,507,864 \$ 498,269,365	\$ 479,879,167 \$ 479,879,167 \$ 527,223,361 \$ 519,984,862 \$ 512,746,363 \$ 505,507,864 \$ 498,269,365 \$ 430,861,624
(12) Estimated	Monthly Bill	Impact per	Ratepayer	\$ 5.25	\$ 5.44		\$ 5.86	\$ 5.86 \$ 7.60	\$ 5.86 \$ 7.60 \$ 8.35	\$ 5.86 \$ 7.60 \$ 8.35 \$ 8.23	\$ 5.86 \$ 7.60 \$ 8.35 \$ 8.23 \$ 8.12	\$ 5.86 \$ 7.60 \$ 8.35 \$ 8.23 \$ 8.12 \$ 8.00	5.86 5.7.60 5.8.35 6.8.23 6.8.12 6.8.00 7.89	\$ 5.86 \$ 7.60 \$ 8.35 \$ 8.23 \$ 8.12 \$ 8.00 \$ 7.89 \$ 6.82
(13) Estimated	Annual Bill	Impact per	Ratepayer	\$	\$	٠	Ş	ۍ ‹›	\$ 70.33 \$ 91.17 \$ 100.17	***	~~~~~		~~~~~~~	\$ 91.17 \$ 100.17 \$ 98.79 \$ 97.41 \$ 94.66 \$ 81.86



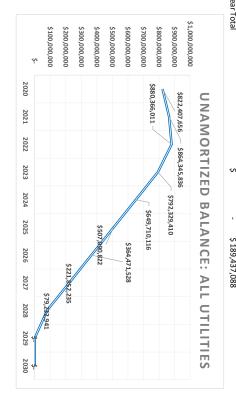


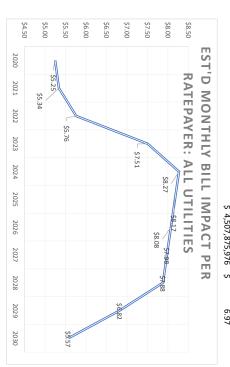
Utility Financia	Utility Financial Data - PSC Filings - Case 9494	s - Case 9494	
PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

	WACC/Rate of	
Utility	Return	Proposed
WG&L	9.62%	6.00%
PEPCO	9.29%	6.00%
DPL	8.57%	6.00%
SMECO	6.12%	6.00%
Potomac Ed	9.09%	6.00%
BGE	9.51%	6.00%

Option 4c: Longer Term Repayment Reduced ROR 6%

	\$ 697	\$ 4 507 875 976 \$	n					¢ 189 /37 088	ı	٨		10 Vear Total
\$ 66.80	\$ 5.57	351,628,683	- \$	(11,229,529) \$	- \$	\$ 70,324,473	6.00%	\$		\$301,118,228 \$	\$ 301,118,228	2030
\$ 81.86	\$ 6.82	430,861,624	- \$	(11,229,529) \$	- \$	\$ 70,324,473	6.00%	₹ \$		\$380,351,169 \$	\$ 301,118,228	2029
\$ 94.55	\$ 7.88	497,691,023	- \$	(11,229,529) \$	- \$	\$ 70,324,473	6.00%	\$ 3,443,047	79,232,941	\$443,737,522 \$	\$ 301,118,228	2028
\$ 95.73	\$ 7.98	503,888,507	- \$	(11,229,529) \$	- \$	\$ 70,324,473	6.00%	\$ 9,640,530	221,852,235	\$443,737,522 \$	\$ 301,118,228	2027
\$ 96.91	\$ 8.08	510,085,991	- \$	(11,229,529) \$	- \$	\$ 70,324,473	6.00%	\$ 15,838,014	364,471,528	\$443,737,522 \$	\$ 301,118,228	2026
\$ 98.09	\$ 8.17	516,283,475	- \$	(11,229,529) \$	- \$	\$ 70,324,473	6.00%	\$ 22,035,498	507,090,822	\$443,737,522 \$	\$ 301,118,228	2025
\$ 99.26	\$ 8.27	522,480,958	- \$	(11,229,529) \$	- \$	\$ 70,324,473	6.00%	\$ 28,232,981	649,710,116	\$443,737,522 \$	\$ 301,118,228	2024
\$ 90.07	\$ 7.51	474,095,749	- \$	(11,229,529) \$	- \$	\$ 70,324,473	6.00%	\$ 34,430,465	792,329,410	\$389,154,829 \$	\$ 301,118,228	2023
\$ 69.11	\$ 5.76	363,736,781	- \$	(11,229,529) \$	\$ (10,127,799) \$	\$ 70,324,473	6.00%	\$ 38,256,072	880,366,011	\$ 285,098,053 \$	\$ 301,118,228	2022
\$ 64.05	\$ 5.34	337,123,184	- \$	(11,229,529) \$	\$ (10,127,799) \$	\$ 70,324,473	6.00%	\$ 37,560,480	864,345,836	\$259,180,048 \$	\$ 301,118,228	2021
\$ 62.95	\$ 5.25	331,338,401	(8,670,185) \$	(11,229,529) \$	\$ (10,127,799) \$	\$ 70,324,473	9.25%	\$ 55,116,450	822,407,656	\$244,509,479 \$	\$ 301,118,228	2020
Ratepayer	Ratepayer	(12) * (13)	True Up	Revenue	Credit	Year Expense)) Return	(4)*(6)*(.7248)	(Prior)+(2)-(3)	Amortization	Program Cost	Year
Impact per	Impact per	Requirement		Wholesale	Federal Tax	Costs (Current	WACC / Rate of	Utility	Balance			
Annual Bill	Monthly Bill	Revenue				Net Operating	Imputed Utility Net Operating	Return to	Unamortized			
Estimated	Estimated	Ratepayer										
(13)	(12)	(11)	(10)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)





Option 5a and 5 b – Performance-Based Incentives

Two additional options were examined to incorporate a Performance-Based Incentive mechanism. There is a wide range of best practices to consider in designing a performance-based incentive for a program such as EmPOWER. That said, any option considered must take into account the current program structure and the inherent constraints associated with over \$800 million of Unamortized Balance and long-standing practice of delivering a steady Rate of Return to the EmPOWER Utilities.

These options (referred to as Option 5a and Option 5b) build upon the existing programmatic and financial structure of EmPOWER, retaining most of the key elements of the program while adding new incentive structures that have the potential to benefit both the Utility Companies and Ratepayers. Additionally, these options address (over a 10-year period) the full repayment of the over \$800 million Unamortized Balance associated with the program through a gradual repayment mechanism by Ratepayers.

Option 5a

This option provides an incentive for the EmPOWER Utilities in the event that program investments result in a reduction of overall energy usage by Ratepayers. Reduced usage (from a pre-determined baseline based on historical usage) by Ratepayers is captured as program Savings and is split 50/50 between the Utilities and Ratepayers.

This approach reduces the baseline Rate of Return to the EmPOWER Utilities by approximately 25% (from an average of 9.23% to 7.0%).

To model the Savings, the Ratepayer Revenue Requirement and Ratepayer Surcharges are held constant with amounts from the baseline year. Any reduction in Sales is then captured as Savings which are then distributed to the Ratepayers and EmPOWER Utilities through a True Up process, with 50% of the savings rebated to Ratepayer and the remaining 50% being added to Utility Return.

In this model, there is no upside cap on the Utility ROR.

The graph below represents the impact of the application of the Savings to the monthly bill for Ratepayers over the 10-year period. The lower line reflects the application of modeled Savings.

EST'D MONTHLY BILL IMPACT PER RATEPAYER: ALL UTILITIES \$9.00 \$8.50 \$8.35 \$7.89 \$8.00 \$8.02 \$8.12 \$7.50 \$7.84 \$7.60 \$7.65 \$6.82 \$7.48 \$7.30 \$7.00 \$7.37 \$6.50 \$6.00 74 \$5.86 \$6.25 \$5.57 \$5.50 \$5.06 \$5.00 \$4.50 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

Graph IV-G

Option 5b

This option also provides an incentive for the EmPOWER Utilities in the event that program investments result in a reduction of overall energy usage by Ratepayers. Reduced usage (from a pre-determined baseline based on historical usage) by Ratepayers is captured as program Savings and is split between the Utilities and Ratepayers based on a series of thresholds.

This option is more nuanced that Option 5a, as it includes both a floor and a ceiling on the Rate of Return to the EmPOWER Utilities. Specifically, it includes the following

- FULL ROR + 50% share of excess revenue for energy savings greater than 110% of the three-year cycle goal. The ROR is capped at 2% above current WACC.
- FULL ROR for energy savings between 90% 110% of the three-year cycle goal
- ROR is reduced if energy savings are less than 90% of three-year energy savings goal. The ROR is reduced to a floor which is the current WACC minus 1%.

The graph below represents the impact of the application of the Savings to the monthly bill for Ratepayers over the 10-year period. The lower line reflects the application of modeled Savings.

Graph IV-H

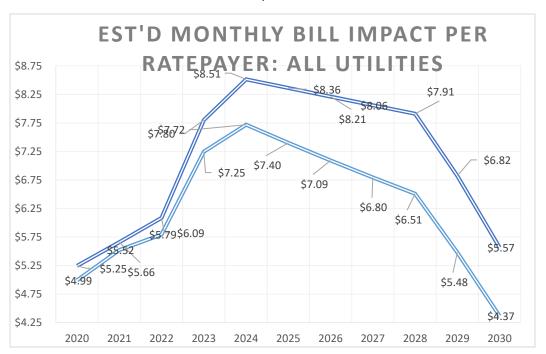


Table IV-C below compares the average monthly costs, maximum monthly charge, and 2030 rates of Option 5a and Option 5b to the Status Quo option:

Table IV-C

	Status Quo	Opti	on 5A	Optio	on 5B
		Rates	% Change	Rates	% Change
10 Year Avg. Monthly Rate	\$6.26	\$6.65	6%	\$6.27	0.2%
Maximum Monthly Rate	\$6.52	\$8.02	23%	\$7.72	18%
Forecasted 2030 Rate	\$6.52	\$5.06	(22%)	\$4.37	(33%)

Assumptions

- Based on forecasts prior to the COVID-19 pandemic, customer growth was expected and electricity sales (net of DSM) was expected to be relatively flat.
- The model uses the proposed 2020 program costs for future years
- A higher portion of the Unamortized Balance would be repaid each year

Table IV-D below compares the two (2) Performance-Based Incentive options (Option 5a and Option 5b) to the previously analyzed options.

Table IV-D

	CR 1	WG Report Optio	ons 3	4a	Add	itional Option 4b	ıs	4c	Р	erformance Based 5a	P	erformance Based 5b
	Status Quo	ОРС	PSC						Re Ba	2% Annual eduction, 7% aseline ROR, 50/50 Split	W. RO	2.7% Annual Reduction, ACC Baseline R, Split above % (110% goal), ROR Cap
Avg. Utility Return per Year	\$ 60,106,475	\$ 4,774,085	\$ 20,036,108	\$ 25,286,892	\$	22,125,661	\$	18,943,709	\$	39,381,483	\$	33,788,678
Opportunity to Earn WACC	9.23%	4.00%	9.23%	8.00%		7.00%		6.00%		12.46%		10.69%
Avg. Ratepayer Surcharges per Year	\$ 401,600,458	\$ 436,627,974	\$ 451,889,997	\$ 457,140,781	\$	453,979,550	\$	450,797,598	\$	430,164,033	\$	403,785,592
Unamortized Balance/Debt in 2030	\$ 903,599,067	\$ -	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
Maximum RatePayer Impact (month)	\$ 6.52	\$ 8.32	\$ 15.17	\$ 8.42	\$	8.35	\$	8.27	\$	8.02	\$	7.72
10-Year Avg Ratepayer Impact (month)		\$ 6.76	\$ 6.98	\$ 7.06	\$	7.01		6.97	\$	6.65	\$	6.27
RatePayer Impact in 2030 (month)	\$ 6.52	\$ 5.57	\$ 5.57	\$ 5.57	\$	5.57	\$	5.57	\$	5.06	\$	4.37

A few highlights worth noting:

- Option 5a and Option 5b delivers greater Utility Revenue over a 10-year period than all prior options except for the Status Quo Option.
- The Rate of Return for Option 5a and Option 5b are greater than all other options due to the application of incentivized Savings. In the event that Savings do not materialize, the return to Utilities will be lower.
- Total Ratepayer Surcharges over the 10-year period are lower in Option 5a and Option 5b than all other options except for the Status Quo Option, which does not incorporate any paydown of Unamortized Balance.
- The Monthly Ratepayer Impact in 2030 for Option 5a and Option 5b is lower than all other Options due to application of modeled Savings. At \$5.06/month for Option 5a and \$4.37/month for Option 5b, it is over 20% lower than the Status Quo Option at \$6.52/month.

PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

	WACC/Rate of	
Utility	Return	Proposed
WG&L	9.62%	7.00%
PEPCO	9.29%	7.00%
DPL	8.57%	7.00%
SMECO	6.12%	5.10%
Potomac Ed	9.09%	7.00%
BGE	9.51%	7.00%

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Excess Ratepayer Hold Constant
Revenues to Option 4b
(10) (11)

Estimated Monthly Bill Impact per Ratepayer

			238,077,019 238,077,019	ক	atepayers tilities	to R	50% of Savings to Ratepayers 50% of Savings to Utilities				7.00% \$172,558,223	Return Savings	Modeled Rate of Return Add'l Return via Savings		
			476,154,038	\$	reduction/yr	2%	Total Savings @2% reduction/yr				\$221,256,608	\$4,359,398,899 \$221,256,608	10-Yr Totals		
₩.	4,539,717,350	\$ 4	(476,154,038) \$ 4,539,717,350	₩.							\$221,256,608		10-Year Total		
S	351,638,683	•	(64,324,277) \$	\$	(11,229,529)	\$	\$	70,324,473	\$ 70,	7.00%	\$·	⟨	\$301,118,228	\$ 301,118,228	Ŭ
s	430,871,624	\$	(71,633,372)	\$	(11,229,529)	s	\$	70,324,473	\$ 70,	7.00%	\$ -	\$ -	\$380,351,169	\$ 301,118,228	_
s	498,277,939	\$	(74,361,494)	\$	(11,229,529)	\$	\$ >	70,324,473	\$ 70,	7.00%	\$ 4,021,388	\$ 79,232,941	\$443,737,522	\$ 301,118,228	•
s	505,513,872	\$	(66,664,372)	\$	(11,229,529)	s	⟨ >	70,324,473	\$ 70,	7.00%	\$ 11,259,887	\$ 221,852,235	\$443,737,522	\$ 301,118,228	-
s	512,749,804	\$	(58,534,297)	\$	(11,229,529)	s	\$ -	70,324,473	\$ 70,	7.00%	\$ 18,498,386	\$ 364,471,528	\$443,737,522	\$ 301,118,228	•
s	519,985,737	\$	(49,959,815)	\$	(11,229,529)	s	⟨ >	70,324,473	\$ 70,	7.00%	\$ 25,736,885	\$ 507,090,822	\$443,737,522	\$ 301,118,228	•
s	527,221,669	\$	(40,929,188)	\$	(11,229,529)	s	\$ -	70,324,473	\$ 70,	7.00%	\$ 32,975,384	\$ 649,710,116	\$443,737,522	\$ 301,118,228	_
s	479,874,909	\$	(28,220,484)	\$	(11,229,529)	s	⟨ >	70,324,473	\$ 70,	7.00%	\$ 40,213,883	\$ 792,329,410	\$389,154,829	\$ 301,118,228	•
s	370,156,959	\$	(14,658,216)	\$	(11,229,529)	Ş	\$ (10,127,799)	70,324,473	\$ 70,	7.00%	\$ 44,682,092	\$ 880,366,011	\$285,098,053	\$ 301,118,228	
s	343,426,154	\$	(6,868,523)	\$	(11,229,529)	Ş	\$ (10,127,799)	70,324,473	\$ 70,	7.00%	\$ 43,868,701	\$ 864,345,836	\$259,180,048	\$ 301,118,228	
s	(8,670,185) \$ 331,338,401	⊹	(8,670,185)	⋄	(11,229,529)	Ş	\$ (10,127,799)	70,324,473	\$ 70,	9.25%	\$ 55,116,450	\$ 822,407,656	\$244,509,479	\$ 301,118,228	Ŭ
٦,	Requirement	R	True Up		Revenue		Credit	xpense)	Year E	(4)*(6)*(.7248) Rate of Return Year Expense)	(4)*(6)*(.7248)	(Prior)+(2)-(3)	Amortization	Program Cost	
=	Revenue				Wholesale		Federal Tax	Costs (Current	Costs (Imputed Utility	Utility	Balance			
3	Ratepayer	_						Net Operating	Net Op		Return to	Unamortized			

Year

2020
2021
2022
2023
2023
2024
2025
2026
2026
2027
2028
2030

	Revenue	lmpa	Impact per		Impact per
20	Requirement	Rate	Ratepayer		Ratepayer
\$	315,335,060	\$	4.99	\$	59.91
s	339,991,893	s	5.38	s	64.59
s	362,827,851	s	5.74	s	68.93
s	465,764,667	s	7.37	s	88.49
s	506,757,075	s	8.02	s	96.28
s	495,005,829	s	7.84	s	94.04
s	483,482,656	\$	7.65	s	91.86
s	472,181,686	s	7.48	s	89.71
s	461,097,192	\$	7.30	s	87.60
s	395,054,938	s	6.25	s	75.06
s	319,476,544	\$	5.06	s	60.70

(13)
Estimated
Annual Bill
Impact per
Ratepayer
\$ 62.95
\$ 70.32
\$ 91.17
\$ 100.16
98.79
97.42
96.04
94.67
81.86
66.81

5.25 5.44 5.86 7.60 8.35 8.23 8.12 8.00 7.89 6.82

7.01

\$ 4,301,640,331 \$

6.65

	Revenue	₹	Impact per	_	Impact per
R	Requirement	Ra	Ratepayer		Ratepayer
\$	315,335,060	\$	4.99	\$	59.91
s	339,991,893	s	5.38	s	64.59
s	362,827,851	s	5.74	s	68.93
s	465,764,667	s	7.37	s	88.49
s	506,757,075	\$	8.02	s	96.28
s	495,005,829	s	7.84	s	94.04
s	483,482,656	\$	7.65	s	91.86
s	472,181,686	s	7.48	s	89.71
s	461,097,192	\$	7.30	s	87.60
2	205 054 028	7	1	7	35 05

PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
	227547	BGE	11/18/2019

	L				
BGE		11/18/2019	BGE	227547	181
Potomac E		11/25/2019	Potomac Ed	227637	179
SMECO		11/22/2019	SMECO	227606	177
DPL		11/15/2019	DP&L	227501	175
PEPCO		11/15/2019	PEPCO	227502	174
WG&L		11/18/2019	WG&L	227417	171
Utility		Date	Utility	PSC Maillog	PSC Item
			83 - Case 3434	or Data - FOC TIME	Culty
			100 - Case 9494	IItility Financial Data - PSC Filings - Case 9494	I Itility Financi

		Note: ROR capped at 2% above Current WACC/ROR	Note: ROR	10.69%	9.25%	9.23%	9.25%	Overall
			No	10.98%	9.51%	8.51%	9.51%	BGE
formula	Yes	Savings Split Triggered by this Scenario?	No	10.10%	9.09%	8.09%	9.09%	Potomac Ed
fixed	110%	Savings Split Triggered for Exceeding Goal by:	No	7.44%	6.12%	5.12%	6.12%	SMECO
		(Note: do not enter zero)	No	10.10%	8.57%	7.57%	8.57%	DPL
input	2.70%	Scenario Percentage Utility Sales Reduction	Yes	11.28%	9.29%	8.29%	9.29%	PEPCO
fixed	2.00%	EmPOWER Goal for Annual Utility Sales Reduction	No	10.63%	9.62%	8.62%	9.62%	WG&L
		Assumptions	Triggered?	Savings (if applic.)	reduction)	reduction)	WACC/ROR	Utility
			ROR Cap	After Split of	(>=1.8%	(<1.8%	Current	
				Adjusted ROR	>=90% of Goal	<90% of Goal		
					WACC/ROR at	WACC/ROR at		
					Baseline	Baseline		
			ncentive Model	Performance-Based Incentive Model				

Note Regarding Amortization of Program Costs

Amortization (Column 3) is increased during 2021-2024 timeframe to new baseline that is approx. 50% above annual Program Costs (Column 2) to achieve accelerated paydown of Unamortized Balance (Column 4)

3	1=1			Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030								
(2)	1			Program Cost	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228	\$ 301,118,228								
(3)	12			Amortization	\$244,509,479	\$259,180,048	\$285,098,053	\$389,154,829	\$443,737,522	\$443,737,522	\$443,737,522	\$443,737,522	\$443,737,522	\$380,351,169	\$301,118,228	10-Year Total	10-Yr Totals	Modeled Rate of Return Add'l Return via Svgs (aft.tax) Adjusted Rate of Return	Adjusted 10-Year Total	Application of ROR cap at 2% above Current WACC/ROR by Utility	10-Yr Totals \$4,359 Modeled Rate of Return	Add'l Return via Svgs (aft.tax) Adjusted Rate of Return	Adjusted 10-Year Total
(4)	7.7	Unamortized	Balance	(Prior)+(2)-(3)	\$ 822,407,656	\$ 864,345,836	\$ 880,366,011	\$ 792,329,410	\$ 649,710,116	\$ 507,090,822	\$ 364,471,528	\$ 221,852,235	\$ 79,232,941	·	٠		\$ 4,359,398,899	vgs (aft.tax) Return	Total)R cap at 2% abov	\$ 4,359,398,899 Return	vgs (aft.tax) Return	Total
(E)	3	Return to	Utility	(4)*(6)*(.7248)	\$ 55,116,450	\$ 57,870,890	\$ 58,890,302	\$ 53,001,272	\$ 43,461,043	\$ 33,920,814	\$ 24,380,585	\$ 14,840,356	\$ 5,300,127	\$·	٠	\$291,665,390	\$291,665,390	9.23% \$ 50,196,270 10.82%	\$341,861,660	e Current WACC/	\$291,665,390 9.23%	\$ 46,221,392 10.69%	\$337,886,782
(8)	13		Imputed Utility	Rate of Return	9.25%	9.24%	9.23%	9.23%	9.23%	9.23%	9.23%	9.23%	9.23%	9.23%	9.23%					/ROR by Utility			
(7)	4.7	Net Operating	Costs (Current	Year Expense)	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473	\$ 70,324,473								
(8)	3		Federal Tax	Credit	\$ (10,127,799)	\$ (10,127,799)	\$ (10,127,799)	·	⟨ >	⟨ >	·	₹	٠,	₹	٠		Total Savings (from above)	Savings Split Friggered? Savings to Utilities (if applicable) Savings to Ratepayers			Total Savings (from above) Savings Split Triggered?	Savings to Utilities (if applicable) Savings to Ratepayers	
(6)	3		Wholesale	Revenue	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)	\$ (11,229,529)		ve)	plica	crieck		ve)	plica	cneck
Excess Ratepayer Revenues	1			True Up	\$ (8,670,185)	\$ (9,650,977)	\$ (20,476,361)	\$ (38,839,015)	\$ (55,763,721)	\$ (67,556,279)	\$ (78,548,212)	\$ (88,767,202)	\$ (98,240,019)	\$ (94,078,314)	\$ (84,199,493)	\$ (636,119,593) \$ 4,610,204	\$ 636,119,593	Yes \$ 69,255,339 \$ 566,864,254			\$ 636,119,593 Yes	\$ 63,771,236 \$ 572,348,357	
Opt 4 @ WACC	17	Ratepayer	Revenue	Requirement	\$ 331,338,401	\$ 357,443,594	\$ 384,381,011	\$ 492,676,556	\$ 537,719,020	\$ 528,178,791	\$ 518,638,562	\$ 509,098,333	\$ 499,558,104	\$ 430,871,624	\$ 351,638,683	\$ 4,610,204,278		IT Yes, Utilities reco					
(12)	Estimated	Monthly Bill	Impact per	Ratepayer	\$ 5.25	\$ 5.66	\$ 6.09	\$ 7.80	\$ 8.51	\$ 8.36	\$ 8.21	\$ 8.06	\$ 7.91	\$ 6.82	\$ 5.57	\$ 7.11	110% Target	eive 50% of Savings					
(12)	Estimated	Annual Bill	Impact per	Ratepayer	\$ 62.95	\$ 67.91	\$ 73.03	\$ 93.60	\$ 102.16	\$ 100.35	\$ 98.53	\$ 96.72	\$ 94.91	\$ 81.86	\$ 66.81		\$ (497,608,915)	in excess of 110%					
Cavings Applied to Batanavers	0	Ratepayer	Revenue	Requirement	\$ 315,335,060	\$ 348,760,131	\$ 365,957,413	\$ 457,731,168	\$ 487,545,633	\$ 467,395,055	\$ 447,964,839	\$ 429,230,078	\$ 411,166,685	\$ 346,224,697	\$ 275,880,221	\$ 4,037,855,921 \$ 5,484,102.72 check		r Yes, Utilities receive 50% of Savings in excess of 110% l'arget (see box above) subject to KOK Cap					
Datas	Estimated	Monthly Bill	Impact per	Ratepayer	\$ 4.99	\$ 5.52	\$ 5.79	\$ 7.25	\$ 7.72	\$ 7.40	\$ 7.09	\$ 6.80	\$ 6.51	\$ 5.48	\$ 4.37	\$ 6.27 check		e) subject to ROR					
90 07%	Estimated	Annual Bill	Impact per	Ratepayer	\$ 59.91	\$ 66.26	\$ 69.53	\$ 86.96	\$ 92.63	\$ 88.80	\$ 85.11	\$ 81.55	\$ 78.12	\$ 65.78	\$ 52.41			<u>lab</u>					

V. ALTERNATIVES RANKING

In this Section, the eight (8) Options presented in Section IV are ranked in accordance with the key metrics described in Section IV. Each of the metrics is assigned a ranking based on their relative position to all other options.

Table V-A below summarizes the rankings of the Options:

Table V-A

	CRWG	Report Op 2	tions 3	Add 4a	itional Opt	ions 4c	Performance Based 5a 2% Annual Reduction, 7%	Performance Based 5b 2.7% Annual Reduction, WACC Baseline ROR, Split above 2.2%
	Status Quo	ОРС	PSC				Baseline ROR, 50/50 Split	(110% goal), ROR Cap
Avg. Utility Return per Year	8	1	2	5	4	3	7	6
Opportunity to Earn WACC	3	8	3	5	6	7	1	2
10-Year Ratepayer Surcharges Unamortized Balance/Debt in 2030	1 8	4	6	8	7	5	3	2
2030	8		1	1	1	1	T	1
Maximum RatePayer Impact (month)	1	4	8	4	4	4	3	2
10-Year Avg Ratepayer Impact (month)	1	4	5	5	5	5	3	2
RatePayer Impact in 2030 (month)	8	3	3	3	3	3	2	1
Total Ranking Points Average Ranking	30 4.29	25 3.57	28 4.00	31 4.43	30 4.29	28 4.00	20 2.86	16 2.29
Overall Rank	6	3.37	4.00	8	6	4.00	2.80	1

VI. SUMMARY OF ANALYSIS AND PEROFORMANCE REQUIREMENTS

As demonstrated in the rankings in Section V, the Performance-Based Options build upon the existing programmatic and financial structure of EmPOWER, retaining most of the key elements of the program while adding a new incentive that has the potential to benefit both the Utility Companies and Ratepayers. Additionally, these Options address (over a 10-year period) the full repayment of the over \$820 million of uncollected costs associated with the program.

Additional "Sector Level" analysis of the two Performance-Based Options is provided in Appendix 2. This additional analysis provides spreadsheets for each of the EmPOWER Utilities detailing these options on a Residential and Commercial/Industrial basis.

The Performance-Based Options presented herein are quite straightforward, and were selected for the ease of financial modeling alongside the analysis. Much more nuanced incentive models could and should be explored. As noted above in Section II, the experience in Illinois, New Jersey and Massachusetts provide EmPOWER stakeholders with additional performance-based options.

One approach that was considered, but not evaluated herein, was the concept of recommending that the Utility Companies raise capital through debt/bond issuances in the capital markets in order to "refinance" the existing uncollected program costs at lower interest rates.

This approach was determined to be outside the parameters of what could reasonably be achieved through EmPOWER. In addition to the transactional complexity of such an approach, it was also determined that the potential negative reaction to a public offering of debt was high.

That said, it is worth noting that several of the options include a feature whereby the Utility Rate of Return is reduced. Since the Rate of Return includes the borrowing cost of Utilities, a reduction in this rate is similar to refinancing existing uncollected costs at lower interest rates.

PERFORMANCE REQUIREMENTS

BUDGET

The EmPOWER Program planning includes a budgeting process that allocates sufficient funds to achieve the energy savings goal through ratepayer rebates and incentives, cover administrative costs, and provide a return to the EmPOWER Utilities. The planning process provides an opportunity for stakeholders to voice concerns about the budget and merits of the proposed cycle plans to the Commission. The incentive mechanisms are built on the premise of continued involvement of stakeholders and feedback to the Commission about the proposed cycle plans and budgets, among other factors. The participation of stakeholders in the planning process will continue to serve the public by balancing stakeholder interests.

The cost recovery mechanism of EmPOWER recoups program costs through a surcharge on customer bills each month. The cost recovery design sought to limit the bill impact on ratepayers by amortizing the annual program costs over a 5-year period and in return, the utilities are afforded the opportunity to earn their authorized ROR on energy efficiency spending that are financed above the amount collected from the ratepayer surcharge.

Currently absent from the current structure is the explicit incentive for utilities to spend efficiently and therefore, manage the costs of achieving the goals. The unamortized balance is directly proportional to the amount of actual spending that occurs; as 80% or more of annual program costs are uncollected each year. Under the current structure, ratepayers' benefit from lower spending as it decreases the amount of uncollected program costs; while utilities benefit from higher spending as the uncollected amount and returns increase. Although spending has been less than the proposed budgets on average, since 2016, the adoption of an explicit incentive component that promotes efficiency in spending would be warranted in a performance incentive mechanism. The budget component promotes cost reduction in two ways: the cost of achieving the energy efficiency goals and the amount of interest that will accrue on the uncollected program costs. The implementation of an incentive mechanism would require strict adherence to the approved budget. However, reallocation of funds between programs should still be considered but the energy savings should be achieved within the approved budget. It is not expected that material changes to the budgeting process would be required.

REQUIREMENT #1—Reported Spending < 100% of approved expenditures⁸

EVALUATION

The evaluation process will remain crucial to a performance incentive mechanism in EmPOWER. Additional evaluation of energy savings and benefits may be required to verify reports by the EmPOWER Utilities as the evaluation process is currently a year or two years behind the current program year, for some programs. Changes may be needed to implement more timely evaluation of programs. The evaluation of the Programs' success is determined by the Total Resource Costs (TRC) test which examines the net present value of the benefits and costs. A "TRC ratios greater than 1.0 indicate that the financial benefits that accrue over the life of the measures exceed the financial costs of the program, specifically the costs associated with: utility program administration; the provision of incentives to free riders; and customer outlays for the efficiency measures." Meeting the TRC threshold of 1.0 for the Residential and for the Commercial and Industrial sub-portfolios should be a requirement—in addition to meeting the energy savings goal—to ensure that the programs provide benefits to ratepayers above the cost. Evaluation of each year's program results should be utilized to monitor the progress of the mechanism towards achieving the stated goals.

REQUIREMENT # 2—TRC > 1 for Residential and Commercial and Industrial Portfolios

PROGRAM LEVEL ENERGY SAVINGS

Although the three-year plans proposed by the EmPOWER utilities include an evaluation of each program's cost-effectiveness, the sub-portfolio approach to the TRC was adopted to encourages the development of new programs and supports new innovations that may contribute to State goals and economic development. A disadvantage of a review at the sub-portfolio level is that it allows for some programs to contribute more than their fair share of energy savings; that is, while a few programs produce significant benefits, there are programs that significantly underperform. Evidenced from recent

⁸ Adjustments/changes to reported spending in future years should trigger an evaluation by the Commission to see if adjustments are needed to rewards/penalties.

⁹ Public Service Commission of Maryland; The EmPOWER Maryland Energy Efficiency Act STANDARD REPORT OF 2020 at 19.

EmPOWER reports show that two or three residential programs can account for over 75% of the gross energy savings for some utility portfolios.

A reconciliation of the proposed program benefits and retrospective evaluation would increase accountability and help to improve the planning process. To improve program performance, it should be required that, in addition to meeting the three-year energy savings goals, utilities also meet or exceed the program benefits forecasted in the three-year plans. An incentive mechanism that ensures the proposed benefits of the programs to ratepayers are achieved through a balanced distribution of energy savings will help to spread the benefits across the ratepayers and balance the costs of achieving the energy saving goals. The goal is not to reduce the performance of the programs that have exceeded expectations but to improve the planning process so that the expected benefits of the programs can be achieved. The ability for a utility to achieve the program level benefit-cost ratio in the approved design plan for all programs should be met or exceeded in addition to achieving the three-year cycle energy savings targets.

REQUIREMENT # 3—Meet or Exceed designed program-level benefit-cost ratios

REWARD/RISK ADJUSTMENT

Based on the three-year program energy savings goals, an incentive mechanism can promote cost reduction in achieving the energy efficiency goals and increases benefits to ratepayers. However, an adjustment to the risk distribution of achieving the energy savings should be utilized to encourage additional feedback to the Commission and stakeholders on the potential costs and benefits of the program in the planning process. The risk of achieving the EmPOWER energy savings goal falls entirely on the ratepayers despite the administration and design components. Ratepayers pay the interest costs on the uncollected program costs regardless of program performance—absent a finding of imprudent spending—as there are no prescribed penalties for missing the energy savings goal for the three-year cycle. The performance incentive mechanisms, as designed, would change the risk distribution of achieving the program goals by creating incentives for the EmPOWER Utilities to improve the program design and provide stakeholders with a more accurate picture of the expected costs and benefits of achieving the energy efficiency goals.

TRUE-UP PROCESS

The True-up process will continue to play a significant role in the incentive mechanism to balance revenue and costs--including incentive payments. One approach is using targeted energy savings to build the potential costs into the rates and inclusive of a reserve amount each year to make potential incentive payments; alternatively, the amount can be applied to unamortized balance--if the goals are not achieved. In developing the surcharge, a reserve amount may be set to approximately one third of the expected incentive amount for each year based on the energy savings target to reduce the likelihood of a revenue shortfall and limit rate shocks in future years. The amount would be excluded from the True-up process and may be kept in an interest-bearing account. After completion of the evaluation for the cycle performance, a payment would be made to the utilities for meeting the energy savings goals and the performance requirements. The excess revenue could be applied to the uncollected program costs to lower the unamortized balance, if the energy savings goals and performance requirements are not met. In the event, the utility does not meet the energy savings goals and performance requirements, the ROR adjustment would be applied (retroactively for the WACC-1% option) and used

to reduce the unamortized balance following the completion of evaluation for the third year of the cycle.

VII. DISCUSSION

The performance incentive mechanisms seek to reduce costs to ratepayers by promoting efficiency in spending, ensuring the delivery of program benefits at the sub-portfolio level, and reconciling the projected program benefits with the realized program benefits. The mechanisms also seek to incentivize a more balanced distribution of the costs and burden of achieving the energy savings goals. Although successful implementation across all the EmPOWER Utilities would help to alleviate the size of the uncollected program costs; there are differences that should be accounted for in the implementation. Differences in organizational structure of the utilities, energy efficiency goals across electricity and natural gas sectors, and programs supported by the EmPOWER surcharges vs non-EmPOWER funds.

Firstly, SMECO is the only cooperative in Maryland participating in EmPOWER and the organizational structure does not necessarily lend itself to the same incentives as an investor-owned-utility; as they do not have the same shareholder responsibility. However, as of the end of 2019, SMECO had \$52,510,693 in unamortized program costs. The goal of the performance incentive mechanisms is to reduce long-run costs to ratepayers. To the extent that members of the Cooperative can benefit from a mechanism that seeks to reduce the carrying costs of the uncollected program expenses, certain components of the mechanism may provide value. It is also worth noting that the Cost Recovery Workgroup review revealed that SMECO's WACC is lower than the value shown in the 2020 EmPOWER tariff filing.

Secondly, the current energy efficiency goals do not include an energy saving requirements for natural gas companies. In addition, Washington Gas Light Company started offering energy efficiency programs several years after the Energy Efficiency Act of 2008. The programs offered by Washington Gas Light Company have accumulated \$32,443,352 in unamortized program costs but have not yet achieved the forecasted annual energy saving targets. A performance incentive may not be appropriate without natural gas energy efficiency goal; however, ratepayers could benefit from efforts to balance of risk of achieving the energy savings as outlined in the incentive mechanism.

Finally, several of the electric utilities currently support programs that are not funded by ratepayer surcharge but contribute to the energy savings goals; namely, programs funded by Customer Investment Funds (CIF) and the Conservation Voltage Reduction (CVR) program. The current treatment of CIF funds removes the amount from the uncollected balance eliminating the accrual of interest to the utilities. Capital costs related to CVR are currently added to the rate base and receive the authorized rate of return applied to other capital investments. The energy savings associated with both of these programs are captured in the gross energy savings reported by the utilities. MEA recommends that energy savings derived from programs not funded by the EmPOWER surcharge be removed from the performance incentive calculus.

As mentioned earlier, the cost of evaluating of energy savings may increase due to additional review and processes that may be necessary. It is expected that stakeholder involvement will increase due to increased stakes in the evaluation of energy savings. The current policies and procedures may not be sufficient to address the new and potentially growing concerns of the stakeholders. Therefore, new processes may need to be developed to increase transparency and to address these concerns.

IMPACT OF COVID-19

The COVID-19 pandemic has impacted the livelihood of residents and the operations of business in the state of Maryland and across the globe. The forecast of energy consumption and customer growth are two key assumptions in the model that will require adjustments once we have a clearer picture of the magnitude of the pandemic on these variables. The models in the analysis assume that consumption would be relatively flat after adjustments for customer growth at the aggregate level. The implication of the assumption is that the actual revenue collected by the utilities would be sufficient to cover the revenue requirement. Preliminary economic indicators suggest that these assumptions may not hold. The extreme and unforeseen circumstances may also place cost recovery at risk for the utilities and regulatory action may be required to balance the interest of all stakeholders in the market.

Although the main goal of the mechanism is to reduce costs to ratepayers in the long-run, we acknowledge that the mechanisms will increase costs in the short-run and that the timing of those increases may coincide with attempts by individual consumers, businesses, and the State to recover from the pandemic. Increasing costs during the recovery, especially the early stages of recovery, may have unintended consequences on the livelihoods of Maryland residents. These factors could increase uncertainty around rates and the impact on customers. MEA recommends that the Commission weighs all these factors when making a decision about adopting performance incentive mechanisms in EmPOWER.

APPENDIX 1

2020 BASELINE EMPOWER UTILITIES SUMMARY

All EmPower Utilities

	•		
PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

_						
Potomac Ed	SMECO	PEPCO DPI	WG&L	Utility		
9.09%	6.12%	9.29% 8.57%	9.62%	Return	WACC/Rate of	

ı				
2020	Year			
\$ 301,118,228 \$ 244,509,479	Program Cost Amortization			
\$ 244,509,479	Amortization			
\$		Balan	닼	
822,407,656 \$ 55,116,450	(3)	Balance (Prior)+(2)- Return to Utility WACC / Rate	Unamortized	
\$ 5	(4)*(Retur		
5,116,450	(4)*(6)*(.7248)	n to Utility	_	
9.25%	of Return Year Expense	WACC / Rate	Imputed Utility	
\$ 6	Year	Cost	Net	
\$ 69,284,366 \$	Expense)	Costs (Current	Net Operating	
(10	Cr	Federal Ta		
(10,127,799)	Credit	al Tax		
\$	Whole			
(11,219,529) \$	Wholesale Revenue			
(True Up			
(8,670,185) \$ 330,308,294	dD e			
\$ 33	Requ	Re	Rat	
0,308,294	Requirement	Revenue	Ratepayer	
\$	Ra	₹	⋖	

(2)

(3)

(4)

(5)

(6)

(8)

(9)

(12)
Estimated
Monthly Bill
Impact per
Ratepayer

Estimated Annual Bill Impact per Ratepayer

5.23 \$

62.75

Utility **Baltimore Gas and Electric**

Data Source
PSC Case
PSC Item
PSC Maillog
Date 9494 181 227547 11/18/2019

Notes
Tax Rate - State and Federal
27.52%
Net Operating Costs only from Peak Rewards Riders 15 and 56

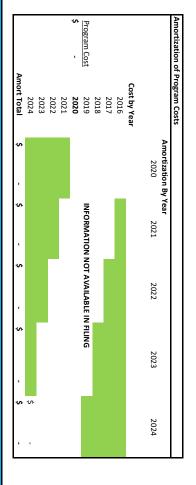
Amortization of Program Costs	rogram Costs										
		Α	Amortization By Year	Yea	,						
			2020		2021		2022		2023		2024
	Cost by Year										
	2016	٠,	19,717,838								
	2017	s	19,027,543	s	19,027,543						
	2018	s	19,623,298	s	19,623,298	s	19,623,298				
Program Cost	2019	s	21,467,247	s	21,467,247	s	21,467,247	s	21,467,247		
\$ 107,630,501	2020	÷	21,526,100	s	21,526,100	s	21,526,100	s	21,526,100	s	21,526,100
	2021			÷	21,526,100	❖	21,526,100	ş	21,526,100	s	21,526,100
	2022					❖	21,526,100	❖	21,526,100	s	21,526,100
	2023							÷	21,526,100	s	21,526,100
	2024									s	21,526,100
ъ	Amort Total	s	101,362,026	s	\$ 101,362,026 \$ 103,170,288 \$	s	105,668,846 \$	s	107,571,648 \$ 107,630,501	s	107,630,501

2020	Year	(1)
\$ 107,630,501	Program Cost Amortization	(2)
\$ 107,630,501 \$ 101,362,026 \$		(3)
\$ 329,929,427	Unamortized salance (Prior)+(2)- (3)	(4)
329,929,427 \$ 22,741,534	Unamortized Net Operating Balance (Prior)+(2)- Return to Utility Utility WACC / Costs (Current (3) (4)*(6)*(.7248) Rate of Return Year Expense)	(5)
9.51%	Utility WACC / Rate of Return	(6)
\$ 41,293,987 \$	Net Operating Costs (Current Year Expense)	(7)
	Federal Tax Credit	(8)
\$ (2,082,066) \$	Wholesale Revenue	(9)
(2,026,118) \$	True Up	(10)
	Ratepayer Revenue Requirement (12) * (13)	(11)
161,289,363 28,644,557,000	Projected Sales (kWh)	(12)
0.00563072	Ratepayer Surcharge Average Projected Sales (3)+(5)+(7)+(8)+ kWh/Month (kWh) (9)+(10) / (12) per Ratepayer	(13)
1000	Average kWh/Month per Ratepaye	(14)
₩.		
5.63 \$	Estimated Monthly Bill Impact per Ratepayer	(15)
67.57	Estimated Annual Bill Impact per Ratepayer	(16)

Utility Delmarva Power and Light

PSC Item PSC Maillog Date Data Source PSC Case 175 227501 11/15/2019 9494

Notes
Tax Rate - State and Federal
27.52%
Netted out CIF merger contributions for 2018-2020 for projection purposes
Federal Tax Credit ends in 2022
Net Operating Costs only from Demand Response Pricing and Direct Load Control



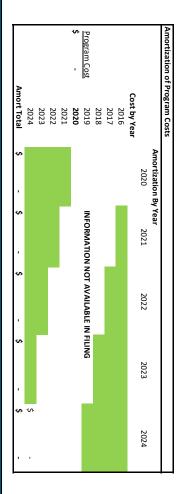
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2020	Year	(1)
\$ 27,487,526	Unamortized Unamortized Unamortized Return to Utility Utility WACC / Costs (Current Program Cost Amortization (Prior)+(2)-(3) (4)*(6)*(.7248) Rate of Return Year Expense)	(2)
\$ 20,173,758	Amortization	(3)
\$ 57,827,006	Unamortized Balance (Prior)+(2)-(3)	(4)
\$ 3,591,057	Net Operating Return to Utility Utility WACC / Costs (Current (4)*(6)*(.7248) Rate of Return Year Expense)	(5)
8.57%	Utility WACC / Rate of Return	(6)
\$ 3,079,913	Net Operating Costs (Current Year Expense)	(7)
\$ 27,487,526 \$ 20,173,758 \$ 57,827,006 \$ 3,591,057 8.57% \$ 3,079,913 \$ (2,312,399) \$ (3,095,726) \$ (735,655) \$ 20,700,948 4,082,777,226	Federal Tax Credit	(8)
\$ (3,095,726) \$	Wholesale Revenue	(9)
(735,655) \$	R: True Up	(10)
20,700,948	Ratepayer Revenue Requirement (12) * (13)	(11)
4,082,777,226	Projected Sales (kWh)	(12)
0.00507031	Surcharge Average Projected Sales (3)+(5)+(7)+(8)+ kWh/Month (kWh) (9)+(10) / (12) per Ratepayer	(13)
1000	Average kWh/Month per Ratepayer	(14)
₩	Monthly Bill Impact per Ratepayer	
5.07 \$ 60.84		(15)
60.84	Annual Bill Impact per Ratepayer	(16)

<u>Data Source</u> PSC Case PSC Item PSC Maillog Utility PEPCO

Date 9494 174 227502 11/15/2019

Notes
Tax Rate - State and Federal
27.52%
Residential program costs reduced by WGL Billing Coord. amt. (\$1,682,363)
Net Operating Costs only from Dynamic Pricing and Direct Load Control



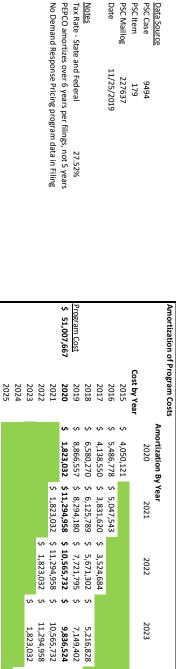
2020	Year	(T)
2020 \$ 79,106,442 \$ 67,987,733 \$ 191,575,983 \$ 12,892,619 9.29% \$ 16,325,977 \$ (7,815,400) \$ (6,041,737) \$ (5,840,132) \$	Program Cost Amortization	(2)
\$ 67,987,733 \$		(3)
191,575,983	Unamortized lance (Prior)+(2)- (3)	(4)
\$ 12,892,619	Unamortized Net Operating Balance (Prior)+(2)- Return to Utility Utility WACC / Costs (Current Federal Tax Wholesale (3) (4)*(6)*(.7248) Rate of Return Year Expense) Credit Revenue	(0)
9.29%	Utility WACC / Rate of Return	(0)
\$ 16,325,977	Net Operating Return to Utility Utility WACC / Costs (Current Federal Tax (4)*(6)*(.7248) Rate of Return Year Expense) Credit	()
\$ (7,815,400)	Federal Tax Credit	(0)
\$ (6,041,737) \$	Wholesale Revenue	(5)
(5,840,132) \$	True Up	(DT)
	Ratepayer Revenue Requirement (12) * (13)	(11)
77,509,060 14,053,652,336	Projected Sales (kWh)	(71)
0.00551523	Ratepayer Surcharge Average s (3)+(5)+(7)+(8)+(kWh/Month 9)+(10) / (11) per Ratepayer	(CT)
1000	Average kWh/Month per Ratepayer	(44)
\$ 5.5	Estimated Monthly Bill Impact per Ratepayer	(ст)
5.52 \$ 66.18	Estimated I Annual Bill Impact per Ratepayer	(10)

Data Source PSC Case PSC Item PSC Maillog Date 227637 11/25/2019 9494 179

Tax Rate - State and Federal

Utility

Potomac Edison



2024

2025

Amort Total

\$ 30,945,308 \$36,417,122 \$ 40,601,503 \$

45,886,476 \$

49,204,587

v v

1,823,032 **51,005,647**

6,577,030

9,107,311 \$
9,836,524 \$
10,565,732 \$
11,294,958 \$
1,823,032 \$

9,107,311 9,836,524 10,565,732 11,294,958

8,378,090

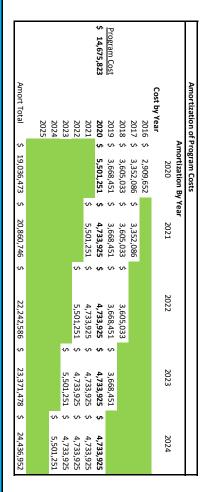
2020	Year	(1)
\$ 51,005,647 \$ 30,945,308 \$157,131,195 \$ 10,354,946 9.09%	Unamortized Unamortized Balance Return to Utility Utility WACC / Costs (Current Program Cost Amortization (Prior)+(2)-(3) (4)*(6)*(.7248) Rate of Return Year Expense)	(2)
\$ 30,945,308	Amortization	(3)
\$ 157,131,195	Unamortized Balance I (Prior)+(2)-(3)	(4)
\$ 10,354,946	Net Operating Return to Utility Utility WACC / Costs (Current Federal Tax Wholesal (4)*(6)*(.7248) Rate of Return Year Expense) Credit Revenue	(5)
9.09%	Utility WACC / Rate of Return	(6)
\$	Net Operating Costs (Current Year Expense)	(7)
\$ -	Federal Tax Credit	(8)
\$	Wholesale Revenue	(9)
\$	True Up	(10)
\$ 41,300,254	Ratepayer Revenue Requirement (12) * (13)	(11)
6,934,708,543	Projected Sales (kWh)	(12)
0.00595559	Ratepayer Surcharge Average (3)+(5)+(7)+(8)+ kWh/Month (9)+(10) / (11) per Ratepayer	(13)
1000	Average kWh/Month per Ratepayer	(14)
↔	Es: Mo Im	
5.96 \$	Estimated Monthly Bill Impact per Ratepayer	(15)
71.47	Estimated Annual Bill Impact per Ratepayer	(16)

Utility SMECO

Data Source PSC Case PSC Item PSC Maillog Date 227606 11/22/2019 9494 177

Notes
Tax Rate - State and Federal 0.00%

Unamortized Balance not available in filings; extrapolated from 4/19 CRWG report Net Operating Costs only from Cool Sentry Demand Response programs



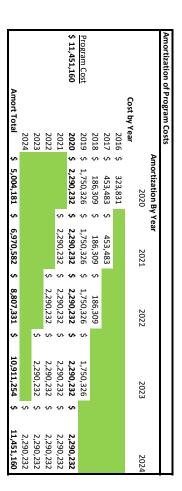
	_
Year	(1)
Program Cost	(2)
Amortization	(3)
	(4)
Return to Utility (4)*(6)	(5)
Utility WACC / Rate of Return	(6)
Net Operating Costs (Current Year Expense)	(7)
Federal Tax Credit	(8)
Wholesale Revenue	(9)
True Up	(10)
Ratepayer Revenu Requirement (1 * (13)	(11)
e .2) Projected Sales (kWh)	(12)
Ratepayer Surcharge (3)+(5)+(7)+(8)+(9)+(10) / (11)	(13)
Average kWh/Month per Ratepayer	(14)
Estima Monthly Impact Ratepa	(15)
_	
Stimated Innual Bill Inpact per Satepayer	(16)
	Unamortized Net Operating Ratepayer Revenue Ratepayer Revenue Balance Return to Utility WACC / Costs (Current Federal Tax Wholesale Requirement (12) Projected Sales (3) Program Cost Amortization (Prior)+(2)-(3) (4)*(6) Rate of Return Year Expense) Credit Revenue True Up *(13) (kWh) 9

Utility Washington Gas & Light

Data Source
PSC Case
PSC Item
PSC Maillog
Date 9494 171 227417 11/18/2019

Notes
Tax Rate - State and Federal

No Demand Response program data in Filing Monthly therm estimate based on total Res and C&I accounts (492,943)



		$\overline{}$
2020	Year	(1)
\$ 11,451,160	Unamortized Unamortized Balance Return to Utility Utility WACC / Costs (Current Federal T. Program Cost Amortization (Prior)+(2)-(3) (4)*(6)*(.7248) Rate of Return Year Expense) Credit	(2)
\$ 5,004,181	Amortization	(3)
\$ 11,451,160 \$ 5,004,181 \$ 32,433,352 \$ 2,261,440 9.62%	Unamortized Balance I (Prior)+(2)-(3)	(4)
\$ 2,261,440	Net Operating Balance Return to Utility Utility WACC / Costs (Current rior)+(2)-(3) (4)*(6)*(.7248) Rate of Return Year Expense)	(5)
9.62%	Utility WACC / Rate of Return	(6)
·	Net Operating Costs (Current Year Expense)	(7)
\$	×	(8)
\$	Wholesale Revenue	(9)
⇔	True Up	(10)
\$ 7,265,621	Ratepayer Revenue Requirement (12) * (13)	(11)
711,417,000	Projected Sales (Therms)	(12)
0.01021289	Ratepayer Surcharge Average (3)+(5)+(7)+(8)+(9 Therms/Month)+(10) / (11) per Ratepayer	(13)
120	Average Therms/Month per Ratepayer	(14)
₩	Esti Mon Imp Rati	
1.23 \$	Estimated E Monthly Bill A Impact per Ir Ratepayer R	(15)
14.74	Estimated Annual Bill Impact per Ratepayer	(16)

APPENDIX 2

SECTOR LEVEL ANALYSIS OF PERFORMANCE-BASED OPTIONS

Performance-Based Option 5a Residential Sector Analysis

All EmPower Utilities - Res Only

PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

	WACC/Rate of	
Utility	Return	Proposed
WG&L	9.62%	7.00%
PEPCO	9.29%	7.00%
DPL	8.57%	7.00%
SMECO	6.12%	5.10%
Potomac Ed	9.09%	7.00%
BGE	9.51%	7.00%

			\$ 253,911,346 \$ 126,955,673 \$ 126,955,673	reduction/yr \atepayers \tilities	Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities	50 50		\$120,780,717 7.00% \$ 92,017,472 12.34%	\$ 2,379,653,913 Return Savings	10-Yr Totals \$ 2,379 Modeled Rate of Return Add'l Return via Savings Adiusted Rate of Return		
	8.41	\$ 2,447,097,640 \$	\$ (253,911,346) \$ 2,44			1	•	\$120,780,717		10-Year Total		
\$ 77.88	6.49	\$ 185,520,113 \$	\$ (33,936,674) \$	(9,637,035)	· ·	\$ 64,112,188 \$	7.00%	₹ \$	\$	\$136,910,545	\$ 136,910,545	2030
\$ 95.91	7.99	\$ 228,458,703 \$	\$ (37,981,771) \$	\$ (9,637,035)	· ·	\$ 64,112,188 \$	7.00%		ب	\$179,849,135	\$ 136,910,545	2029
\$ 111.24	9.27	\$ 264,988,949 \$	\$ (39,546,150) \$	\$ (9,637,035)	· \$	\$ 64,112,188 \$	7.00%	\$ 2,179,373	\$ 42,938,590	\$214,200,008	\$ 136,910,545	2028
\$ 112.89	9.41	\$ 268,911,820 \$	\$ (35,462,603) \$	\$ (9,637,035)	- \$	\$ 64,112,188 \$	7.00%	\$ 6,102,244	\$ 120,228,053	\$214,200,008	\$ 136,910,545	2027
\$ 114.53	9.54	\$ 272,834,691 \$	\$ (31,146,159) \$	\$ (9,637,035)	· \$	\$ 64,112,188 \$	7.00%	\$ 10,025,115	\$ 197,517,516	\$214,200,008	\$ 136,910,545	2026
\$ 116.18	9.68	\$ 276,757,562 \$	\$ (26,590,646) \$	\$ (9,637,035)	- \$	\$ 64,112,188 \$	7.00%	\$ 13,947,987	\$ 274,806,979	\$214,200,008	\$ 136,910,545	2025
\$ 117.83	9.82	\$ 280,680,434 \$	\$ (21,789,739) \$	\$ (9,637,035)	· \$	\$ 64,112,188 \$	7.00%	\$ 17,870,858	\$ 352,096,441	\$214,200,008	\$ 136,910,545	2024
\$ 107.06	8.92	\$ 255,023,387 \$	\$ (14,997,415) \$	\$ (9,637,035)	- \$	\$ 64,112,188 \$	7.00%	\$ 21,793,729	\$ 429,385,904	\$184,620,090	\$ 136,910,545	2023
\$ 89.57	7.46	\$ 213,354,634 \$	\$ (8,448,844) \$	\$ (9,637,035)	(4,870,265) \$	\$ 64,112,188 \$	7.00%	\$ 24,215,255	\$ 477,095,449	\$145,400,076	\$ 136,910,545	2022
\$ 84.20	7.02	\$ 200,567,347 \$	\$ (4,011,347) \$	\$ (9,637,035)	(4,870,265) \$	\$ 64,112,188 \$	7.00%	\$ 24,646,157	\$ 485,584,980	\$132,181,888	\$ 136,910,545	2021
\$ 83.05	6.92	\$ 197,833,479 \$	\$ (2,633,700) \$	\$ (9,637,035)	(4,870,265) \$	\$ 64,112,188 \$	9.25%	\$ 32,227,731	\$ 480,856,323	\$124,699,894	\$ 136,910,545	2020
Ratepayer	Ratepayer	Requirement	True Up	Revenue	Credit	Year Expense)	(4)*(6)*(.7248) Rate of Return Year Expense)	(4)*(6)*(.7248)	(Prior)+(2)-(3)	Amortization	Program Cost	Year
Impact per	Impact per	Revenue		Wholesale	Federal Tax		Imputed Utility Costs (Current	Utility	Balance			
Annual Bill	Monthly Bill	Ratepayer N				Net Operating		Return to	Unamortized			
Estimated	Estimated											
(13)	(12)	(11)	(10)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)
		to Option 4b										
		Hold Constant	Excess Ratepayer									

Modeled Rate of Return
Add'l Return via Savings
Adjusted Rate of Return

7.00% \$ 92,017,472 12.34%

	Revenue	lmpa	Impact per	_	Impact per
_	Requirement	Rate	Ratepayer	_	Ratepayer
\$	197,833,479	\$	6.92	\$	83.05
s	198,561,674	s	6.95	s	83.36
\$	209,130,212	s	7.32	\$	87.79
s	247,524,679	s	8.66	s	103.91
\$	269,785,564	s	9.44	\$	113.25
s	263,462,239	s	9.22	s	110.60
\$	257,261,612	s	9.00	\$	108.00
s	251,180,518	s	8.79	s	105.44
s	245,215,874	⋄	8.58	s	102.94
s	209,467,818	s	7.33	s	87.93
s	168,551,776	\$	5.90	s	70.76

\$ 2,320,141,967 \$

8.01

Utility **Baltimore Gas and Electric**

<u>Data Source</u> PSC Case PSC Item PSC Maillog Date 11/18/2019 9494 181 227547

Notes
Tax Rate - State and Federal
Pay off Unamortized Debt in 10 Years Wholesale Revenues assumed to remain consistent Net Operating Costs only from Peak Rewards Riders 15 and 56 27.52%

Performance Incentive Incorporated Decrease Rate of Return/WACC to 7%

Amortization of Program Costs

	2027 2028 2029 2030	2022 2023 2024 2025 2025 2026	Year 2020 2021	Peak Rew 56 (1)	Commercial Adjustment Peak Rew 15	Scenario 5: Po
	\$ 52,472,238 \$ 52,472,238 \$ 52,472,238 \$ 52,472,238	\$ 52,472,238 \$ 52,472,238 \$ 52,472,238 \$ 52,472,238 \$ 52,472,238 \$ 52,472,238	Program Cost \$ 52,472,238 \$ 52,472,238	(2)		# 52,472,238
10-Year Total 10-Yr Totals Modeled Rate of Return Add'l Return via Savings Adjusted Rate of Return	\$ 84,565,745 ! \$ 84,565,745 ! \$ 70,301,964 ! \$ 52,472,238 !	\$ 56,462,656 \$ 72,283,045 \$ 84,565,745 \$ 84,565,745 \$ 84,565,745 \$ 84,565,745	Amortization \$ 48,424,233 ! \$ 51,329,687 !	(3)	₩.	nance incentive with Longer Ten 52,472,238 \$ 48,424,233 \$
\$ 988,587,512 Return avings	49,923,233 17,829,726 - -	\$ 198,108,067 \$ 178,297,261 \$ 146,203,754 \$ 114,110,247 \$ 82,016,740	Unamortized Balance (Prior UB)+(2)-(3) \$ 200,955,934 \$ 202,98,485	(4)	5 79,027,783	Scenario 5: Performance Incentive with Longer Term Repayment Reduced ROR Inputs Residential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151
\$ 50,156,976 \$ 50,156,976 7.00% \$ 43,125,092 13.02%	\$ 2,532,905 \$ 904,609 \$ - \$ -	\$ 10,051,211 \$ 9,046,090 \$ 7,417,794 \$ 5,789,497 \$ 4,161,201	Return to Utility (4) * (6) * (.7248) \$ 13,851,587 \$ 10,253,669	(5)		duced ROR
	7.00% 7.00% 7.00% 7.00%	7.00% 7.00% 7.00% 7.00% 7.00%	Utility WACC / Rate of Return 9.51% 7.00%	(6)		
Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities	38,942,968 38,942,968 38,942,968 38,942,968 38,942,968	38,942,968 \$38,942,968 \$38,942,968 \$38,942,968 \$38,942,968 \$	Net Operating Costs (Current Year Expense) 38,942,968 38,942,968	\$ 2,151,270 (7)	\$ 36,791,698	v
eduction/yr \$ atepayers \$ tilities \$	(1,642,675) \$ (1,642,675) \$ (1,642,675) \$ (1,642,675) \$	(1,642,675) \$ (1,642,675) \$ (1,642,675) \$ (1,642,675) \$ (1,642,675) \$	Wholesale Revenue (1,642,675) \$ (1,642,675) \$	(8)		\$ (1,642,675) \$
(118,998,598) 118,998,598 59,499,299 59,499,299	(16,431,386) (18,351,730) (17,922,325) (16,458,377)	(4,118,951) (6,988,106) (10,052,049) (12,284,234) (14,409,772)	True Up 651,689 (1,981,668)	Revenues (9)		Excess Ratepayer 651,689
	\$ 124,598,692 \$ 122,970,396 \$ 107,802,006 \$ 89,972,280	\$ 104,013,909 \$ 118,829,177 \$ 129,483,581 \$ 127,855,284 \$ 126,226,988	Ratepayer Revenue Requirement (11) * (12) \$ 100,227,802 \$ 99,083,398	to Scenario 4b (10)		Hold Constant
	10,630,636,426 10,418,023,698 10,209,663,224 10,005,469,959	11,760,583,962 11,525,372,283 11,294,864,837 11,068,967,541 10,847,588,190	Projected Electricity Sales (kWh) 12,245,506,000	incl. above 2.0% (11)	incl. above	Annual Savings 12,245,506,000
	0.0101/505 0.01004208 0.00880339 0.00734737	0.00849405 0.00970390 0.01057397 0.01044100 0.01030803	Ratepayer Surcharge (3)+(5)+(7)+(8)+(9) / (11) 0.00818486 0.00809141	to Scenario 4b (12)		Hold Constant
	1000	1000 1000 1000 1000	Average kWh/Month per Ratepayer 1000	(13)		
	\$ 10.18 \$ 10.04 \$ 8.80 \$ 7.35		Estimated Monthly Bill Impact per Ratepayer \$ 8.18 \$ 8.09	(14)		
	\$ 122.10 \$ 120.51 \$ 105.64 \$ 88.17	· w w w w	Estimated Annual Bill Impact per Ratepayer \$ 98.22 \$ 97.10	(15)		

Adjusted 10-Year Total

\$ 93,282,068

Utility Delmarva Power and Light

 Data Source

 PSC Case
 9494

 PSC Item
 175

 PSC Maillog
 227501

 Date
 11/15/2019

Notes

27.52% Tax Rate - State and Federal

27.52% Petrod out CIF merger contributions for 2018-2020 for

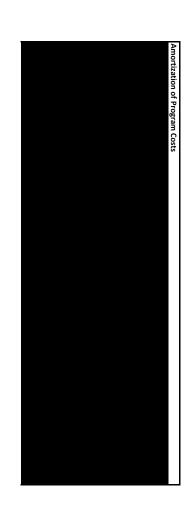
Netted out CIF merger contributions for 2018-2020 for projection purposes Federal Tax Credit ends in 2022

Federal Tax Credit ends in 2022
Pay off Unamortized Debt in 10 Years and Continue Program

Net Operating Costs only from Dynamic Pricing and Direct Load Control Wholesale Revenues assumed to remain consistent

Decrease Rate of Return/WACC to 7%

Performance Incentive Incorporated



Debutis Pacie Pa						7,040,623 7,040,623	tepayers \$	50% of Savings to Ratepayers 50% of Savings to Utilities	509		% + %	7.00% 5,103,044 12.12%	\$	f Return Savings f Return	Modeled Rate of Return Add'l Return via Savings Adjusted Rate of Return	2 2 7		
Electrical						14,081,247	eduction/yr \$.al Savings @2% r	Tot		ω	6,975,67		\$	-Yr Totals	10		
Excest E						(14,081,247)	\$				w	6,975,67	40)-Year Total	10		
Excess Experiment Experim	1000		0.00468756	1,759,268,413		(1,846,277)	(2,755,732) \$	-\$	3,684,529	❖	7.00%		,	\$	9,164,16	9,164,164 \$	❖	2030
Executable Exe	1000		0.00580990	1,795,171,850	\$ 12,509,505	(2,079,733)	(2,755,732) \$	Ş	3,684,529	\$	7.00%	,	,		11,580,70	9,164,164 \$	\$	2029
Electricity Sale, 1,355,385 1,490,433 5,264,97,654 Sale, 2,294,9554 Sale, 2,294,9554 Sale, 2,294,9554 Sale, 3,294,9554 Sale, 3,294	1000		0.00676471	1,831,808,011	\$ 14,565,346	(2,173,688)	(2,755,732) \$	\$	3,684,529	ς,		122,600	2,416,544		13,513,94	9,164,164 \$	ς,	2028
Excess Expense Expen	1000		0.00686721	1,869,191,848	\$ 14,786,036	(1,949,901)	(2,755,732) \$	\$	3,684,529	s		343,290	6,766,323		13,513,94	9,164,164 \$	ş	2027
Excest Ratepayer Excest Ratepayer Excest Ratepayer Excest Ratepayer Excest Ratepayer Excest Ratepayer Hold Constant Annual Savings Hold Constant Excest Ratepayer Excest Ratepayer Hold Constant Hold Constan	1000		0.00696971	1,907,338,620	\$ 15,006,727	(1,713,132)	(2,755,732) \$	\$	3,684,529	ς,	•	563,98	11,116,102		13,513,94	9,164,164 \$	ς,	2026
Excess Ratepayer Hold Constant Annual Savings Hold Constant Hold	1000		0.00707221	1,946,263,898	\$ 15,227,417	(1,463,038)	(2,755,732) \$	❖	3,684,529	\$	•	784,67	15,465,881		13,513,94	9,164,164 \$	\$	2025
Excess Ratepayer Hold Constant Annual Savings Hold Constant Hol	1000		0.00717470	1,985,983,569	\$ 15,448,108	(1,199,265)	(2,755,732) \$	Ş	3,684,529	\$		1,005,36	19,815,661		13,513,94	9,164,164 \$	\$	2024
Excess Ratepayer Hold Constant Hold Cons	1000		0.00650403	2,026,513,846	\$ 14,004,068	(823,551)	(2,755,732) \$	\$	3,684,529	\$		1,226,058	24,165,440		11,849,21	9,164,164 \$	ş	2023
Excess Ratepayer Excess Rate	1000		0.00664375	2,067,871,272	\$ 14,304,886	(566,473)	(2,755,732) \$	(1,193,048) \$	3,684,529 \$	\$	-	1,362,28	26,850,489		13,206,85	9,164,164 \$	\$	2022
Excess Ratepayer Hold Constant Annual Savings Hold Constant Annual Savings Hold Constant	1000	1	0.00618139	2,110,072,726	\$ 13,309,373	(266,187)	(2,755,732) \$	(1,193,048) \$	3,684,529 \$	÷	-	1,567,39	30,893,175	8 \$	12,006,22	9,164,164 \$	❖	2021
Excess Ratepayer Hold Constant Annual Savings Hold Constant Hold Cons	1000	1	0.00584975	2,153,135,435		(562,043)	(2,755,732) \$	(1,193,048) \$	3,684,529 \$	❖		2,094,958	33,735,239	0	11,326,63	9,164,164 \$	❖	2020
Excess Ratepayer Hold Constant Hold Cons	per Ratepayer	er Ra		(kWh)	(12) * (13)	True Up	Revenue	Credit	ear Expense)			4) * (6) * (.7248)		ا	Amortization		Pro	Year
Excess Ratepayer Hold Constant Annual Savings Hold Constant	kWh/Month	kWh/	(3)+(5)+(7)+(8)+	Electricity Sales	Requirement		Wholesale			_		Return to Utility		Balan				
Excess Ratepayer Hold Constant Annual Savings Hold Constant Hold Constan	Average	Ave	Ratepayer Surcharge	Projected	Ratepayer Revenue				et Operating	z			namortized	⊊				
Its Excess Rate payer Hold Constant Annual Savings dential \$ 7,808,179 \$ 9,836,197 \$ 26,497,654 \$ (899,335) \$ (322,763) \$ 186,971 2153135435 Resid \$ 1,200,000 \$ (931,241) \$ (448,351) incl. above Resid \$ 1,355,985 \$ 1,490,433 \$ 7,237,585 \$ 2,484,529 \$ (293,713) \$ (1,501,728) \$ (300,663) incl. above C&I Revenues to Scenario 4b 2.0%	(14)	<u></u>	(13)	(12)	(11)	(10)	(9)	(8)	(7)		(6)	(5)	(4)		(3)	(2)		(1)
Its Excess Rate payer Hold Constant Annual Savings dential \$ 7,808,179 \$ 9,836,197 \$ 26,497,654 \$ (899,335) \$ (322,763) \$ 186,971 2153135435 Resid \$ 1,200,000 \$ (931,241) \$ (448,351) incl. above Cor \$ 2,484,529 \$ (293,713) \$ (1,501,728) \$ (300,663) incl. above			to Scenario 4b	2.0%	to Scenario 4b	Revenues												DF - C&I
Its Excess Ratepayer Hold Constant Annual Savings dential \$ 7,808,179 \$ 9,836,197 \$ 26,497,654 \$ (899,335) \$ (322,763) \$ 186,971 2153135435 Resid \$ 1,200,000 \$ (931,241) \$ (448,351) incl. above				incl. above			(1,501,728) \$	(293,713) \$		٠			7,237,585	φ.		1,355,985 \$	÷	DL - Resid
Excess Ratepayer Hold Constant Annual Savings dential \$ 7,808,179 \$ 9,836,197 \$ 26,497,654 \$ (899,335) \$ (322,763) \$ 186,971 2153135435				incl. above			(931,241) \$	- ⟨ ∧	1,200,000	↔								DP - Resid
Excess Ratepayer Hold Constant Annual Savings \$ 7,808.179 \$ 9,836.197 \$ 76,497.654 \$ (899.335) \$ (322.763) \$ 186.971 215,313,543,543							1	1	4					4	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,,	+	C&I
Excess Ratepayer Hold Constant Annual Savings				2153135435		186.971	(322.763) \$	(899.335) \$	ss				26.497.654	7 \$	9.836.19	7.808.179 \$	ı,	Residential
			Hold Constant	Annual Savings	Hold Constant	cess Ratepayer	Ex											

Adjusted 10-Year Total

ş

12,078,717

Utility PEPCO

 Data Source
 9494

 PSC Case
 9494

 PSC litem
 174

 PSC Maillog
 227502

 Date
 11/15/2019

Notes

Tax Rate - State and Federal 27.52%

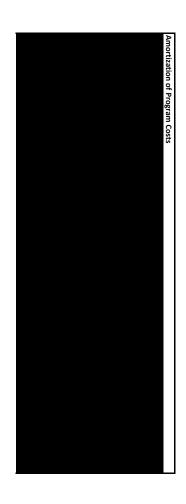
Residential program costs reduced by WGL Billing Coord. amt. (\$1,682,363) Federal Tax Credit ends in 2022

Federal Tax Credit ends in 2022
Pay off Unamortized Debt in 10 Years and Continue Program

Net Operating Costs only from Dynamic Pricing and Direct Load Control Wholesale Revenues assumed to remain consistent

Decrease Rate of Return/WACC to 7%

Performance Incentive Incorporated



	2030	2029	2027	2025	2025	2024	2023	2022	2021	2020	Year				(1)		DL - C&I	DL - Resid	DP - Resid	C&I	Residential	Inputs	Scenario 5: F
	\$ 25,868,778	\$ 25.868.778	\$ 25,868.778	\$ 25,868,778	\$ 25,868,778	\$ 25,868,778	\$ 25,868,778	\$ 25,868,778	\$ 25,868,778	\$ 25,868,778	Program Cost				(2)			\$ 5,395,101			\$ 20,473,677 \$		erformance Incenti
10-Year Total	\$ 25,868,778 \$	\$ 32 829 922 \$	\$ 38.398.838 \$	\$ 38,398,838 \$	\$ 38,398,838 \$	\$ 38,398,838 \$	\$ 33,603,383 \$	\$ 33,550,570 \$	\$ 30,500,518 \$	\$ 28,774,074 \$	Amortization	B	ı		(3)			\$ 4,964,191 \$			\$ 23,809,883 \$		Scenario 5: Performance Incentive with Longer Term Repayment Reduced ROR
		-,,	6.961.144	32,021,264	44,551,323	57,081,383	69,611,443	77,346,047	85,027,840	89,659,580	UB)+(2)-(3)	Balance (Prior	nortiz		(4)			27,458,161			62,201,419		າ Repayment Reduc
\$ 19,893,162		· ·	\$ 353.181	\$ 1,524,531	\$ 2,260,356	\$ 2,896,081	\$ 3,531,806	\$ 3,924,229	\$ 4,313,972	\$ 6,033,882	(4) * (6) * (.7248)	Return to Utility			(5)								ed ROR
	7.00%	7 00%	7.00%	7,00%	7.00%	7.00%	7.00%	7.00%	7.00%	9.29%	Rate of Return	Utility WACC /			(6)								
	\$ 15,419,357	\$ 15,419,357	\$ 15,419,357	\$ 15,419,357	\$ 15,419,357	\$ 15,419,357	\$ 15,419,357	\$ 15,419,357	\$ 15,419,357	\$ 15,419,357	Year Expense)	Costs (Current			(7)			\$ 12,720,912	\$ 2,698,445				
	₩	Λ +	v v	n +/	· •	\$	\$	\$ (3,677,217) \$	\$ (3,677,217) \$	\$ (3,677,217) \$	Credit	Federal Tax	•		(8)			\$ (1,173,503) \$	\$		\$ (2,503,714) \$		
45-	(5,238,628) \$	(5 238 628)	(5,238,628) \$	(5,238,628) \$	(5,238,628) \$	(5,238,628) \$	(5,238,628) \$	(5,238,628) \$	(5,238,628) \$	(5,238,628) \$	Revenue	Wholesale			(9)			(3,671,290) \$	(679,383) \$		(887,955) \$	c	
(47,546,899)	(6,594,435) \$	(7 150 617)	(0,302,575) \$	(5,731,192) \$	(4,884,659) \$	(3,996,149) \$	(2,782,554) \$	(1,741,541) \$	(826,360) \$	(2,300,675) \$	True Up				(10)	Revenues		(860,145)	(1,526,260)		85,730	Excess Ratepayer	
	36,049,507	43 010 651	48.932.747	50,204,197 40 E68 477	50,839,923	51,475,648	47,315,918	43,978,311	41,318,003	39,010,793	(12) * (13)	Requirement	Revenue	Ratepayer	(11)	to Scenario 4b						Hold Constant	
	4,511,911,394	4 603 991 218	4,793,620,736	4,891,659,957	4,991,489,752	5,093,356,889	5,197,302,948	5,303,370,356	5,411,602,404	5,522,043,269	(kWh)	Electricity Sales	Projected		(12)	2.0%		incl. above	incl. above		5522043269	Annual Savings	
	0.00652829	0 00778890	0.00886135	0.00807647	0.00920672	0.00932185	0.00856855	0.00796414	0.00748238	0.00706456	9)+(10) / (11)	(3)+(5)+(7)+(8)+(Surcharge	Ratepayer	(13)	to Scenario 4b						Hold Constant	
	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	per Ratepayer	kWh/Month	Average		(14)								
	\$ 6.53	\$ 779	\$ 8.86	\$ 9.09	\$ 9.21	\$ 9.32	\$ 8.57	\$ 7.96	\$ 7.48	\$ 7.06	Ratepayer	Impact per	Monthly Bill	Estimated	(15)								
	·	Λ +	\$ 106.34	ጉ ቲ/	. ∙0.	\$ 111.86	\$ 102.82	\$ 95.57	\$ 89.79	\$ 84.77	Ratepayer	Impact per	Annual Bill	Estimated	(16)								

Adjusted 10-Year Total

s

37,124,158

Add'l Return via Savings

19,893,162 7.00% 17,230,996

Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities

47,546,899 23,773,450 23,773,450

\djusted Rate of Return

10-Yr Totals \$ 392,091,647 \$

Modeled Rate of Return

Utility Potomac Edison

 Data Source

 PSC Case
 9494

 PSC Item
 179

 PSC Maillog
 227637

 Date
 11/25/2019

Tax Rate - State and Federal 27.52%
PEPCO amortizes over 6 years per filings, not 5 years
Pay off Unamortized Debt in 10 Years and Continue Program
No Dynamic Pricing program data in Filing
Wholesale Revenues assumed to remain consistent

Decrease Rate of Return/WACC to 7% Performance Incentive Incorporated

	2030	2029	2027	2026	2025	2024	2023	2022	2021	2020	Year				(1)		Comm'l	Inputs Books		Scenario 5:
	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	Program Cost				(2)		\$ 25,434,331			Scenario 5: Performance Incentive with Longer Term Repayment Reduced ROR
10-Year Total 10-Yr Totals \$507,3 Modeled Rate of Return Add'l Return via Savings Adjusted Rate of Return	\$ 25,454,331	\$ 34,692,813	\$ 42,083,599	\$ 42,083,599	\$ 42,083,599	\$ 42,083,599	\$ 35,719,311	\$ 22,662,208	\$ 20,602,007	\$ 19,435,856	Amortization				(3)		¢ 19,455,630	¢ 10 125 056		e with Longer
\$507,377,396 f Return Savings f Return	⊹	\$ 9,230,402	\$ 25,867,750	\$ 42,497,018	\$ 59,126,286	\$ 75,755,554	\$ 92,384,822	\$ 102,649,803	\$ 99,857,680	\$ 95,005,356	(3)	(Prior UB)+(2)-	Balance	Unamortized	(4)		23,434,331 \$ 19,433,636 \$ 93,003,336	¢ 05 005 356		Term Repaymer
\$ 25,742,300 \$ 25,742,300 7.00% \$ 14,292,260 10.89%	⊹	\$ 400,724	٠ \$ 1	\$ 2,156,129	\$ 2,999,831	\$ 3,843,534	\$ 4,687,236	\$ 5,208,040	\$ 5,066,379	\$ 6,260,853	* (6) * (.7248	Utility	Return to		(5)					nt Reduced ROR
0\ 0\	7.00%	7.00%				7.00%	5 7.00%	7.00%	7.00%	9.09%	* (6) * (.7248) Rate of Return	(4) Utility WACC/			(6)					
Total Savings @2% reduction/y 50% of Savings to Ratepayers 50% of Savings to Utilities											n Revenue	/ Wholesale			(7)					
₩ ₩ ₩ ₩	↔	↔ •	ጉ ቀ	\$	\$	\$	\$	\$	\$										Exc	
(39,437,803) 39,437,803 19,718,901 19,718,901	(4,656,289) \$	(5,767,758)	(5,722,828) \$	(5,050,302) \$	(4,331,580) \$	(3,565,408) \$	(2,376,228) \$	(1,103,662) \$	(513,368) \$	\$	True Up				(8)	Revenues			Excess Ratepayer	
	25,454,331	34,692,813	43,396,025	44,239,728	45,083,430	45,927,133	40,406,548	27,870,248	25,668,387	25,696,709	(10) * (11)	Requirement	Revenue	Ratepayer	(9)	to Scenario 4b			Hold Constant	
	2,712,703,333	2,768,064,625	2,882,199,735	2,941,020,138	3,001,040,957	3,062,286,691	3,124,782,337	3,188,553,405	3,253,625,924	3,320,026,453	Sales (kWh)	Projected Electricity			(10)	2.0%	3320020433	2270076452	Annual Savings	
	0.00766691	0.01261666	0.01307099	0.01332511	0.01357924	0.01383336	0.01217055	0.00839459	0.00773138	0.00773991	/ (10)	(3)+(5)+(7)+(8)	Surcharge	Ratepayer	(11)	to Scenario 4b			Hold Constant	
		1000		1000		1000	1000	1000	1000	1000	per Ratepayer	kWh/Month	Average		(12)					
	÷	↔ •	ጉ ቀ	↔	\$	ş	❖	⊹	⊹	❖	Rat	Imp	Mor	Est.						
	7.67 \$	10.45 \$	13.07 \$	13.33 \$	13.58 \$	13.83 \$	12.17 \$	8.39 \$	7.73 \$	7.74 \$	Ratepayer	mpact per	=	Estimated	(13)					
	92.00	125.39	156.85	159.90	162.95	166.00	146.05	100.74	92.78	92.88	Ratepayer	Impact per	Annual Bill	Estimated	(14)					

Utility **SMECO**

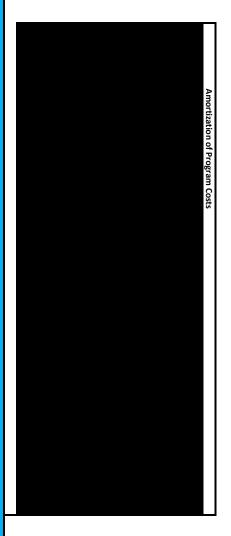
Data Source PSC Case Date PSC Maillog PSC Item 11/22/2019 227606 9494 177

Tax Rate - State and Federal 0.00%

Unamortized Balance not available in filings; extrapolated from 4/19 CRWG report Pay off Unamortized Debt in 10 Years and Continue Program

Wholesale Revenues assumed to remain consistent Net Operating Costs only from Cool Sentry programs

Performance Incentive Incorporated Reduce Rate of Return/WACC to 5.10%



Cool Sent- Res													
Cool Sent - Cl				\$ 6,065,334		\$ (606,603) Revenues	to Scenario 4b	2.0%	to Scenario 4b				
(1) (2)	(3) (4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		(15)
Year Program Cost Amo	Unamortized Balance (Prior UB)+(2) Amortization (3)	Return to - Utility * (6)	(4) Utility WACC / Rate of Return	Net Operating Costs (Current Year Expense)	Wholesale Revenue	True Up	Ratepayer Revenue Requirement (11) * (12)	Projected Electricity Sales (kWh)	Ratepayer Surcharge (3)+(5)+(7)+(8)+(9) / (10)	Average kWh/Month per Ratepayer	Estimated Monthly Bill Impact per Ratepayer		Estimated Annual Bill Impact per Ratepayer
2020 \$ 14,007,234 \$ 13	12,588,847 \$ 35,386,698	6,698 \$ 2,165,666	6.12%	\$ 6,065,334		\$ (422,671) \$	\$ 14,331,842	2,212,848,756	0.00647665	1000	❖	6.48 \$	77.72
2021 \$ 14,007,234 \$ 13	13,344,178 \$ 36,049,754	9,754 \$ 1,838,537	7 5.10%	\$ 6,065,334		\$ (303,654) \$	\$ 15,182,715	2,168,591,781	0.00686116	1000	❖	6.86 \$	82.33
2022 \$ 14,007,234 \$ 14	14,678,596 \$ 35,378,393	8,393 \$ 1,804,298	5.10%	\$ 6,065,334		\$ (652,723) \$	\$ 16,482,894	2,125,219,945	0.00744872	1000	❖	7.45 \$	89.38
\$ 14,007,234 \$	17,545,073 \$ 31,840,553	0,553 \$ 1,623,868	-	\$ 6,065,334		\$ (1,127,287) \$	\$ 19,168,941	2,082,715,546	0.00866256	1000	❖	8.66 \$	103.95
\$ 14,007,234 \$	19,738,534 \$ 26,109,254	9,254 \$ 1,331,572	5.10%	\$ 6,065,334		\$ (1,635,711) \$	\$ 21,070,106	2,041,061,235	0.00952171	1000	↔	9.52 \$	114.26
2025 \$ 14,007,234 \$ 19	19,738,534 \$ 20,377,954	7,954 \$ 1,039,276	5.10%	\$ 6,065,334		\$ (1,996,315) \$	\$ 20,777,809	2,000,240,011	0.00938962	1000	❖	9.39 \$	112.68
\$ 14,007,234 \$	19,738,534 \$ 14,646,655	6,655 \$ 746,979	5.10%	\$ 6,065,334		\$ (2,338,577) \$	\$ 20,485,513	1,960,235,211	0.00925753	1000	❖	9.26 \$	111.09
\$ 14,007,234 \$	19,738,534 \$ 8,915	8,915,355 \$ 454,683	5.10%	\$ 6,065,334		\$ (2,662,970) \$	\$ 20,193,217	1,921,030,506	0.00912544	1000	↔	9.13 \$	109.51
\$ 14,007,234 \$	19,738,534 \$ 3,184	3,184,055 \$ 162,387	7 5.10%	\$ 6,065,334		\$ (2,969,953) \$	\$ 19,900,920	1,882,609,896	0.00899335	1000	❖	8.99 \$	107.92
\$ 14,007,234 \$	17,191,289 \$	· \$	5.10%	\$ 6,065,334		\$ (2,858,090) \$	\$ 17,191,289	1,844,957,698	0.00776885	1000	❖	7.77 \$	93.23
2030 \$ 14,007,234 \$ 14	\$ 14,007,234 \$	· \$	5.10%	\$ 6,065,334		\$ (2,562,304) \$	\$ 14,007,234	1,808,058,544	0.00632996	1000	❖	6.33 \$	75.96

Adjusted 10-Year Total

\$ 18,555,393

Add'l Return via Savings

Adjusted Rate of Return

10-Year Total

\$ 9,001,601 \$ 9,001,601 9,553,793 10.51%

> Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities

r \$ 19,107,585 \$ 9,553,793 \$ 9,553,793

9,553,793

\$ (19,107,585)

.0-Yr Totals odeled Rate of Return

Utility Washington Gas & Light

Data Source PSC Case Date PSC Maillog PSC Item 11/18/2019 227417 9494 171

Pay off Unamortized Debt in 10 Years and Continue Program No Dynamic Pricing program data in Filing Tax Rate - State and Federal

Monthly therm estimate based on total Res and C&I accounts (492,943) Wholesale Revenues assumed to remain consistent

Performance Incentive Incorporated Decrease Rate of Return/WACC to 7%

Amortization of Program Costs

	2020 2021 2022 2023 2023 2024 2025 2026 2026 2027 2028 2028 2029 2030	Year	Scenario 5: Inputs Residential Commercial
	\$ 9,943,800 \$ 9,943,800	Program Cost	Scenario 5: Performance Incentive with Longer Term Repayment Reduced ROR Inputs Residential 9943800 4150254 \$ 26,113,516 Commercial
10-Year Total \$177,i 10-Yr Totals \$177,i Modeled Rate of Return Add'l Return via Savings Adjusted Rate of Return	\$ 4,150,254 \$ 4,399,269 \$ 4,839,196 \$ 13,620,065 \$ 15,899,349 \$ 15,899,349 \$ 15,899,349 \$ 15,899,349 \$ 15,899,349 \$ 15,899,349 \$ 15,899,349 \$ 13,252,439 \$ 9,943,800	(3) Amortization	e with Longer T
\$177,605,770 F Return Savings	\$ 26,113,516 \$ 31,658,047 \$ 36,762,651 \$ 33,086,386 \$ 27,130,836 \$ 21,175,287 \$ 15,219,737 \$ 9,264,188 \$ 3,308,639 \$ -	Unamortized Return Balance Return Unamortized Return B)+(2)- Utility (3)	Longer Term Repayment 4150254 \$ 26,113,516
\$ 9,011,006 \$ 9,011,006 7.00% \$ 5,341,492 11.15%	\$ 1,820,785 \$ 1,606,203 \$ 1,865,190 \$ 1,678,671 \$ 1,376,510 \$ 1,074,349 \$ 772,189 \$ 470,028 \$ 167,867	Return to Utility (4) * (6) * (.7248)	t Reduced ROR
	9.62% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00%	Utility WACC / Rate of Return	
Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities		Wholesale Revenue	(2)
⋄⋄⋄	\$ (1,5) \$ (1,5) \$ (2,7) \$ (2,7) \$ (2,7)	True Up	Excess Ratepayer Revenues
(14,739,215) 14,739,215 7,369,608 7,369,608	\$ (120,109) \$ (265,494) \$ (899,688) \$ (1,341,157) \$ (1,630,819) \$ (1,903,183) \$ (2,158,703) \$ (2,203,248) \$ (1,818,991) \$	d _p	
	5,971,039 6,005,472 6,704,386 15,298,736 17,275,859 16,671,538 16,369,377 16,067,216 13,252,439 9,943,800	Ratepayer Revenue Requirement (10) * (11)	Hold Constant to Scenario 4b
	376,656,000 369,122,880 361,740,422 354,505,614 347,415,502 340,467,192 333,657,848 326,984,691 320,444,997 314,036,097 307,755,375	Projected Gas Sales (Therms)	Annual Savings 376,656,000 2.0%
	0.01585276 0.01594418 0.01779976 0.04061726 0.04586641 0.045866419 0.04426197 0.04345975 0.04265753 0.03518446 0.02640022	Ratepayer Surcharge (3)+(5)+(7)+(8) /	Hold Constant to Scenario 4b
	120 120 120 120 120 120 120 120 120 120	Average Therm/Month per Ratepayer	(42)
	w w w w w w w w w w	Estimated Monthly Bill Impact per Ratepayer	
	1.91 \$ 2.14 \$ 2.14 \$ 5 5.52 \$ 5 5.32 \$ 5 5.13 \$		
	22.88 23.01 25.69 58.62 66.19 65.04 63.88 62.72 61.56 50.78 38.10	(14) Estimated Annual Bill Impact per Ratepayer	

Adjusted 10-Year Total

\$ 14,352,498

Performance-Based Option 5a Commercial Sector Analysis

All EmPower Utilities - C&I Only

Othicy Financial Data - PSC Filings - Case 9494	Jaca - PSC Filligs -	Case 5454	
PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

	WACC/Rate of	
Utility	Return	Proposed
1%9W	9.62%	7.00%
PEPCO	9.29%	7.00%
DPL	8.57%	7.00%
SMECO	6.12%	5.10%
Potomac Ed	9.09%	7.00%
BGE	9.51%	7.00%

				\$ 111,110,000	littes	50% of Savings to Othities	U		12.61%	Return	Adjusted Rate of Return		
				\$ 111,118,685	tepayers	50% of Savings to Ratepayers	<u> </u>		7.00%	Return	Modeled Rate of Return		
				\$ 777 737 360	duction/vr	tal Savings @2% re	T		\$100 475 891	\$ 1 979 7 <i>AA</i> 988	10-yr Totals		
	5.37	δ.	\$ 2,092,597,855	\$ (222,237,369) \$ 2,092,					\$100,475,891		10-Year Total		
52.86	4.41 \$	₩	\$ 166,108,570	\$ (30,385,774)	(1,592,494)	· •	\$ 6,012,536 \$	7.00%	\$	\$.	\$164,207,683	\$ 164,207,683	2030
64.41	5.37 \$	s	\$ 202,402,921	\$ (33,649,939)	(1,592,494)	· •	\$ 6,012,536 \$	7.00%	\$ -	\$	\$200,502,034	\$ 164,207,683	2029
74.24	6.19 \$	\$	\$ 233,280,417	\$ (34,814,064)	(1,592,494)	· •	\$ 6,012,536 \$	7.00%	\$ 1,842,015	\$ 36,294,351	\$229,537,514	\$ 164,207,683	2028
75.29	6.27 \$	s	\$ 236,596,044	\$ (31,200,977)	(1,592,494)	· •	\$ 6,012,536 \$	7.00%	\$ 5,157,643	\$ 101,624,182	\$229,537,514	\$ 164,207,683	2027
76.35	6.36 \$	\$	\$ 239,911,672	\$ (27,387,745)	(1,592,494)	· •	\$ 6,012,536 \$	7.00%	\$ 8,473,271	\$ 166,954,013	\$229,537,514	\$ 164,207,683	2026
77.40	6.45 \$	\$	\$ 243,227,300	\$ (23,369,085)	(1,592,494)	- \$	\$ 6,012,536 \$	7.00%	\$ 11,788,899	\$ 232,283,844	\$229,537,514	\$ 164,207,683	2025
78.46	6.54 \$	\$	\$ 246,542,927	\$ (19,139,581)	(1,592,494)	· ·	\$ 6,012,536 \$	7.00%	\$ 15,104,526	\$ 297,613,675	\$229,537,514	\$ 164,207,683	2024
71.56	5.96 \$	\$	\$ 224,855,780	\$ (13,223,319)	(1,592,494)	- \$	\$ 6,012,536 \$	7.00%	\$ 18,420,154	\$ 362,943,506	\$204,534,739	\$ 164,207,683	2023
49.90	4.16 \$	\$	\$ 156,808,167	\$ (6,209,603)	(1,592,494)	(5,257,534) \$	\$ 6,012,536 \$	7.00%	\$ 20,466,838	\$ 403,270,562	\$139,697,976	\$ 164,207,683	2022
45.46	3.79 \$	s	\$ 142,864,058	\$ (2,857,281)	(1,592,494)	(5,257,534) \$	\$ 6,012,536 \$	7.00%	\$ 19,222,545	\$ 378,760,855	\$126,998,160	\$ 164,207,683	2021
42.42	3.54 \$	\$	\$ 133,305,173	\$ (6,036,485) \$ 133,	(1,592,494)	(5,257,534) \$	\$ 6,012,536 \$	9.25%	\$ 22,888,720	\$ 341,551,333	\$119,809,585	\$ 164,207,683	2020
Ratepayer	Ratepayer	Rate	Requirement	True Up	Revenue	Credit	Year Expense)	(4)*(6)*(.7248) Rate of Return Year Expense)	(4)*(6)*(.7248)	(Prior)+(2)-(3)	Program Cost Amortization	Program Cost	Year
Impact per	Impact per	Impa	Revenue		Wholesale	Federal Tax	Costs (Current	Imputed Utility	Utility	Balance			
Annual Bill	Monthly Bill	Mont	Ratepayer				Net Operating		Return to	Unamortized			
Estimated	Estimated	Estir											
(13)	(12)	(:	(11)	(10)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)
			to Option 4b										
			Hold Constant	Excess Ratepayer									

Adjusted 10-Year Total

\$181,014,713

	Ratepayer Revenue	Estin Mont	Estimated Monthly Bill	Ann Ann	Estimated Annual Bill Impact per
Ŗ	Requirement	Rate	Ratepayer	Rate	Ratepayer
\$	139,341,658	\$	3.70	\$	44.34
s	141,435,417	s	3.75	s	45.01
s	153,703,365	s	4.08	\$	48.91
s	218,244,121	s	5.79	s	69.45
s	236,973,137	s	6.28	\$	75.41
s	231,542,757	s	6.14	s	73.68
s	226,217,799	s	6.00	\$	71.99
s	220,995,556	s	5.86	s	70.33
s	215,873,384	s	5.72	\$	68.70
s	185,577,951	s	4.92	s	59.06
s	150,915,683	s	4.00	s	48.03

	Ratepayer	Estimated Monthly Bill	hated hly Bill	_	Estimated Annual Bill
	Revenue	Impact per	tper	_	mpact per
-	Requirement	Ratepayer	bayer		Ratepayer
٠,	139,341,658	\$	3.70	\$	44.34
٠,	141,435,417	\$	3.75	s	45.01
٠,	153,703,365	\$	4.08	s	48.91
٠,	218,244,121	\$	5.79	s	69.45
٠,	236,973,137	\$	6.28	s	75.41
٠,	231,542,757	\$	6.14	s	73.68
٠,	226,217,799	\$	6.00	s	71.99
٠,	220,995,556	\$	5.86	s	70.33
٠,	215,873,384	\$	5.72	s	68.70
٠,	185,577,951	\$	4.92	s	59.06
٧,	150,915,683	\$	4.00	s	48.03

\$ 1,981,479,171 \$

5.11

Utility **Baltimore Gas and Electric**

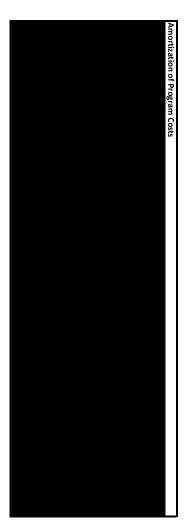
<u>Data Source</u> PSC Case PSC Item PSC Maillog Date 11/18/2019 9494 181 227547

Notes
Tax Rate - State and Federal
Pay off Unamortized Debt in 10 Years 27.52%

Net Operating Costs only from Peak Rewards Riders 15 and 56

Wholesale Revenues assumed to remain consistent Decrease Rate of Return/WACC to 7%

Performance Incentive Incorporated



	2030	2028 2029	2027	2025	2024	2022	2021	2020	Year	(1)	Inputs Residential Commercial Adjustment Peak Rew 15 Peak Rew 56
	\$ 55,158,263	\$ 55,158,263 \$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263 \$ 55,158,263	\$ 55,158,263	\$ 55,158,263	Program Cost	(2)	\$ 55,158,263 \$
10-Yr Totals \$ I Modeled Rate of Return Add'l Return via Savings Adjusted Rate of Return	\$ 55,158,263 : 10-Year Total	\$ 74,833,243 \$ 66,088,807	\$ 74,833,243	\$ 74,833,243	\$ 74,833,243	\$ 61,725,467 \$ 67,303,312	\$ 56,114,061	\$ 52,937,793	Amortization	(3)	\$ 52,231,207 \$ \$ 706,586
610,176,148 Return avings Return	,	10,930,544	30,605,524	69,955,483	89,630,463	121,450,492 109,305,443	128,017,695	\$ 128,973,493	Unamortized Balance (Prior UB)+(2)-(3)	(4)	m Rep
₩ ₩	\$ 30,957,897	\$ 554,572 \$ -	\$ 1,552,802	\$ 3,549,261	\$ 4,547,491	\$ 6,161,912 \$ 5,545,721	\$ 6,495,106	\$ 8,889,947	Return to Utility (4) * (6) * (.7248)	(5)	\$ 4,906,441
	7.00%	7.00% 7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	9.51%	Utility WACC / Rate of Return	(6)	
Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities	2,151,270 \$	2,151,270 \$ 2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$ 2,151,270 \$	2,151,270 \$	2,151,270 \$	Net Operating Costs (Current Year Expense)	(7)	\$ 2,151,270
Λγr	(439,391) <mark>\$</mark> \$	(439,391) \$ (439,391) \$	(439,391) \$			(439,391) \$ (439,391) \$		(439,391) \$	Wholesale Revenue	(8)	
74,927,890 37,463,945 37,463,945	(10,403,095) (74,927,890)	(11,506,125) (11,272,016)				(2,756,131) (4,384,778)		(2,677,807)	True Up	(9)	Excess
	\$ 56,870,142	\$ 77,099,694 \$ 67,800,686	\$ 78,097,924			\$ 69,599,258 \$ 74,560,912		\$ 60,861,812	Ratepayer Revenue Requirement (11) * (12)	(10)	Hold Constant to Scenario 4b
	13,399,218,631	13,951,706,196 13,672,672,072	14,236,434,894	14,823,443,247	15,125,962,497	15,749,648,580 15,434,655,609	16,071,069,980	16,399,051,000	Projected Electricity Sales (kWh)	(11)	Annual Savings 16,399,051,000 incl. above 2.0%
	0.00346789	0.00470147 0.00413443	0.00476234	0.00488409	0.00494496	0.00424410	0.00392224	0.00371130	Ratepayer Surcharge (3)+(5)+(7)+(8)+(9) / (11)	(12)	Hold Constant to Scenario 4b
	1000	1000	1000	1000	1000	1000	1000	1000	Average kWh/Month per Ratepayer	(13)	
	\$ 3.47 \$ 4.38	\$ 4.70 \$ 4.13	\$ 4.76			\$ 4.24		\$ 3.71	Estimated Monthly Bill Impact per Ratepayer	(14)	
č	17 \$ 41.61 38	70 \$ 56.42 13 \$ 49.61	· 40 · 40	. ↔	φ.	55 \$ 54.56	₩.	71 \$ 44.54	Estimated I Annual Bill Impact per Ratepayer	(15)	

Adjusted 10-Year Total

\$ 58,111,764

Utility **Delmarva Power and Light**

PSC Item PSC Maillog Data Source PSC Case Date 227501 11/15/2019 9494 175

Tax Rate - State and Federal 27.52%

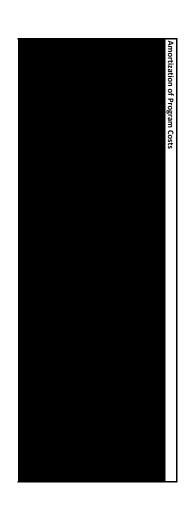
Netted out CIF merger contributions for 2018-2020 for projection purposes Federal Tax Credit ends in 2022

Net Operating Costs only from Dynamic Pricing and Direct Load Control Pay off Unamortized Debt in 10 Years and Continue Program

Decrease Rate of Return/WACC to 7%

Wholesale Revenues assumed to remain consistent

Performance Incentive Incorporated



			2030	2028	2027	2026	2024	2023	2022	2021	2020	Year		(1)	5	DI - C&I	DP - Resid	C&I	<u>Inputs</u> Residential		Scenario 5
			₩	л •s	\$	у	n +01	٠.	\$	ş	÷	P			4	۸		↔	_		: Perform
			18,323,362	18,323,362	18,323,362	18,323,362	18,323,362	18,323,362	18,323,362	18,323,362	18,323,362	Program Cost		(2)	101,101	121 491 \$		18,201,871 \$			Scenario 5: Performance Incentive with Longer Term Repayment Reduced ROR
Adjuste	10-Yr Totals Modeled Ra Add'l Returr Adjusted Ra	10-Year Total	\$ 1	s s	\$ 2	\$ 2	n +s	· \$	\$ 1	↔	↔	Amo			-(Λ.					e with L
Adjusted 10-Year Total	te of Rule via Sarte of Rule of Rule via Sarte	r Total		24,972,617 22,017,393		24,972,617		_	10,315,751	9,377,956	8,847,128	Amortization		(3)	110,011	126 842 \$		8,720,286 \$			onger Term
otal			₩.	Λ 4Λ	❖	∙ •	Λ +Ω	٠.	\$	❖	₩	Balance UB)	Unar			Λ·					Repaym
	195,984,966		,	3,694,031	10,343,286	16,992,541	30,291,051	36,940,306	41,044,784	33,037,173	24,091,767	uB)+(2)-(3)	Unamortized	(4)	, , , , , , , , ,	730 112		23,361,655			ent Reduced
	· Λ · Λ		₩.	<u>ሉ</u> ላ	↔	<u></u>	Λ +Ω	. ₩	s	ş	↔	(4) * (6									ROR
18,577,613	9,943,493 7.00% 8,634,120 13.08%	9,943,493	,	187,420	524,777	862,134	1,536,847	1,874,203	2,082,448	1,676,174	1,496,099	Return to Utility (4) * (6) * (.7248)		(5)							
			7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	8.57%	Otility WACC / Rate of Return		(6)							
			ن د	л v,	s	ن ۸۰	n +01	٠.	s	ş	÷				4	۸					
			435,491	435,491 435,491	435,491	435,491	435,491	435,491	435,491	435,491	435,491	Year Expense)	Net Operating	(7)	100,101	435 491					
	Total Sa 50% of 9								\$ (1,	\$ (1,	\$ (1,	Cr			4	^		\$ (1,			
	Total Savings @2% reduction/ 50% of Savings to Ratepayers 50% of Savings to Utilities								(1,119,351)	(1,119,351)	(1,119,351)	Federal Tax Credit		(8)	(11,00	(21 664) \$		(1,097,687) \$			
	2% redu to Ratep		₩.	Λ Φ	\$	_የ	^ ተረገ	٠.	\$	\$	\$	Re N			4	^		\$			
	Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities		(339,994)	(339,994)	(339,994)	(339,994)	(339,994)	(339,994)	(339,994)	(339,994)	(339,994)	Wholesale Revenue		(9)				(339,994) \$			
	\$ 23,8 \$ 11,9 \$ 11,9	\$ (23,8	\$ (3,3	x (3,7	\$ (3,3	\$ (2,9	(2,0	\$ (1,4	\$ (2		\$ (1	True Up		(10)	Revenues	Λ-				Excess Ra	
	23,824,834 11,912,417 11,912,417	(23,824,834)	(3,369,310)	(3,769,060) (3,676,317)	(3,375,049)	(2,960,135)	(2,065,392)	1,434,771)	(450,424)	(200,606)	(173,612)	ρ		٤	nues	(35,674)		(137,938)		xcess Ratepayer	
			↔ ₹	<i>ሉ</i> ላ	❖	₩	Λ +\r	- ⊀>	\$	↔	↔	Req (1:	Ratepa		to So						
			18,418,859	25,255,534	25,592,891	25,930,248	26,604,961	24,397,541	11,374,345	10,030,276	9,145,761	(12) * (13)	Ratepayer Revenue	(11)	to Scenario 4b					Hold Constant	
					1,67	1,70	1,77	1,81	1,85	1,89		Electr (iici d	incl above		19		Annua	
			1,576,657,834	1,641,667,883 1,608,834,525	1,675,171,309	1,709,358,478	1,779,840,148	1,816,163,417	1,853,227,976	1,891,048,955	1,929,641,791	Electricity Sales (kWh)	Projected	(12)	2.0%	avor		1929641791		Annual Savings	
			0.009	0.013	0.013	0.013	0.013	0.012	0.005	0.005	0.002	(3)+(5)+(7)+(8)+ (9)+(10) / (12)		(13)	to Scenario 4b					Hold Constant	
			0.00954522	0.01308820	0.01326303	0.01343786	0.01378751	0.01264356	0.00589454	0.00519800	0.00473962	/ (12)	rge		rio 4b					ıstant	
			1000	1000	1000	1000	1000	1000	1000	1000	1000	kWh/Month per Ratepayer	Average	(14)							
		⋄	₩.	л v,	\$	·›·‹	Λ +Ω	. ∙	\$	⊹	٠	l · _	Mon								
		10.61	9.55	13.09	13.26	13.44	13.79	12.64	5.89	5.20	4.74	Impact per Ratepayer	Estimated Monthly Bill	(15)							
			\$ 114	\$ 157	\$ 159	\$ 161	\$ 165	\$ 151	\$ 70	\$ 62	\$ 56	Impact per Ratepayer	Estimated Annual Bill	(16)							
			114.54	157.06 137 51	159.16	161.25	165.45	151.72	70.73	62.38	56.88	er Per	Bii d								

Data Source PSC Case Utility PEPCO

PSC Item PSC Maillog Date 227502 11/15/2019 9494 174

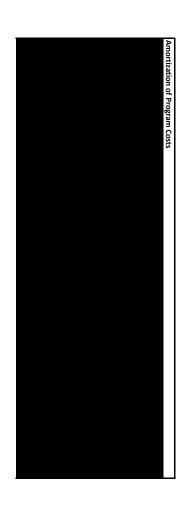
Tax Rate - State and Federal 27.52%

Residential program costs reduced by WGL Billing Coord. amt. (\$1,682,363) Federal Tax Credit ends in 2022

Pay off Unamortized Debt in 10 Years and Continue Program Net Operating Costs only from Dynamic Pricing and Direct Load Control Wholesale Revenues assumed to remain consistent

Performance Incentive Incorporated

Decrease Rate of Return/WACC to 7%



		2030	2029	2028	2027	2026	2025	2024	2023	2022	2021	2020	Year				(1)		DL - C&I	DL - Resid	DP - Resid	C&I	Residentia	Inputs		Scenario
		ö	9	8	7 :	6		4	ü	2	12	0							\$	ш.	_		<u>a</u>			5: Perfor
		\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	\$ 53,237,664	Program Cost				(2)		\$ 441,832 \$			\$ 52,795,832 \$ 38,988,961				Scenario 5: Performance Incentive with Longer Term Repayment Reduced ROR
10-Yr Totals Modeled Ra Add'l Returr Adjusted Ra	10-Year Total	\$ 53,2	\$ 64,1	\$ 72,8	\$ 72,8	\$ 72,8	\$ 72,8	\$ 72,8	\$ 65,3	\$ 45,7	\$ 41,5	\$ 39,2	Amortization				(3)				-	\$ 38,9				ve with L
10-Yr Totals \$ Modeled Rate of Return Add'l Return via Savings Adjusted Rate of Return	Total	53,237,664	64,136,855	72,856,208	72,856,208	72,856,208	72,856,208	72,856,208	65,347,877	45,723,126	41,566,479	39,213,659	zation	_			٠		224,698 \$			88,961 \$				onger Ter
		υ,	·	\$ 1	υ ω	5	5	8	\$ 10	\$ 12	\$ 11	\$ 10	UB)+(Balance	Unamortized											m Repayı
594,363,029		,	,	10,899,191	30,517,736	50,136,280	69,754,825	89,373,369	108,991,913	121,102,126	113,587,588	101,916,403	UB)+(2)-(3)	(Prior	ortized		(4)		1,872,126			100,044,277				nent Red
- ₹	↔	❖	ş	Ş	\$	٠ ج	ζ,	\$	\$	\$	\$	\$	(4) * (O,			7				uced ROF
30,155,603 7.00% 25,419,968 12.90%	30,155,603			552,981	1,548,348	2,543,714	3,539,081	4,534,447	5,529,814	6,144,237	5,762,980	6,858,737	(4) * (6) * (.7248)	Return to Utility			(5)									
5,603 7.00% 9,968 2.90%	03			81	48	14	81	47	14	37	80	•														
		7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	9.29%	Rate of Return	Utility WACC /			(6)									
		\$	÷	₩	↔	⊹	↔	⊹	\$	❖	⊹	\$	-	_	Net O				❖							
		906,620	906,620	906,620	906,620	906,620	906,620	906,620	906,620	906,620	906,620	906,620	Year Expense)	Costs (Current	Net Operating		(7)		906,620 \$							
Total Sa 50% of 9 50% of 9										\$ (4,1	\$ (4,1	\$ (4,1	Cre	Feder			(2					\$ (4,0				
Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities										(4,138,183)	(4,138,183)	(4,138,183)	Credit	Federal Tax			(8)		(71,751)			(4,066,432) \$				
% reducti) Ratepay) Utilities		\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	Revenue	Wholesale			(9)									
on/yr	10	(813,109) \$	813,109) \$	813,109) \$	813,109) \$	(813,109) \$	813,109) \$	813,109) \$	(813, 109)	(813, 109)	(813, 109)	813,109) \$	lue	sale					10.		, , , , , ,	(813,109) \$				
70,14 35,07 35,07	(70,1	(9,7	(10,6	(10,9	(9,8	(8,6)	(7,3	(6,0	(4,1)	(1,89	(8)	(3,5	True ((10)	Revenues			1	(3		LVCc22 Var	Your Dat	
70,143,399 35,071,699 35,071,699	(70,143,399)	755,722) \$	678,442) \$	969,321)	824,393) 9	618,151)	(7,348,983)	(6,015,238)	73,674)	(1,893,779)	865,696)	539,457) \$	듇					.es	(40,359)			499,098)		repayer	anavor.	
				\$ 73,5	\$ 74,4	\$ 75,4	\$ 76,4	\$ 77,4	\$ 70,9	\$ 47,8	\$ 43,2		(12) * (13)	Requirement	Revenue	Ratepayer	(11)	to Scenario 4b						Hold Collarailt	Hold Co	
		53,331,175	64,230,366	73,502,701	74,498,067	75,493,434	76,488,800	77,484,167	70,971,201	47,822,692	43,284,786	38,488,267	(13)	ment	nue	ayer)	irio 4b							П	
		6,970,	7,113,	7,258,	7,406,	7,557,	7,711,	7,869,	8,029,	8,193,	8,360,	8,531,	(kWh)	Electricity Sales	Projected		(12)	2.0%	incl. above			853		Allinai Javiliga	Applicate 6	
		6,970,945,768	7,113,209,967	7,258,377,517	7,406,507,671	7,557,660,889	7,711,898,866	7,869,284,557	8,029,882,201	8,193,757,348	8,360,976,886	8,531,609,067	€	ty Sales	cted		2))%	Ф			8531609067		- Garage	vinas	
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9)+(10) / (11)	(3)+(5)+(7)+(8)+(Surcharge	Ratepayer	(13)	to Scenario 4b						ווסומ כטווסנמוונ	Hold Co	
		0.00625101	0.00752852	0.00861534	0.00873201	0.00884867	0.00896534	0.00908201	0.00831862	0.00560535	0.00507346	0.00451126		7)+(8)+(arge	ayer	3)	ario 4b) I Stallt	notant tant	
		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	per Ratepayer	kWh/Month	Average		(14)									
	\$		\$				\$					\$														
	7.	6	7.	∞.		.∞		9.	.∞	<u>5</u>	<u>5</u>	4.	Ratepayer	Impact per	Monthly Bill	Estimated	(15)									
	7.41	6.25 \$	7.53 \$	8.62 \$	8.73 \$	8.85 \$	8.97 \$	9.08 \$	8.32 \$	5.61 \$	5.07 \$	4.51 \$	-	_	_											
		75.01	90.34	103.38	104.78	106.18	107.58	108.98	99.82	67.26	60.88	54.14	Ratepayer	Impact per	Annual Bill	Estimated	(16)									

Adjusted 10-Year Total

\$

55,575,570

Utility Potomac Edison

 Data Source

 PSC Case
 9494

 PSC Item
 179

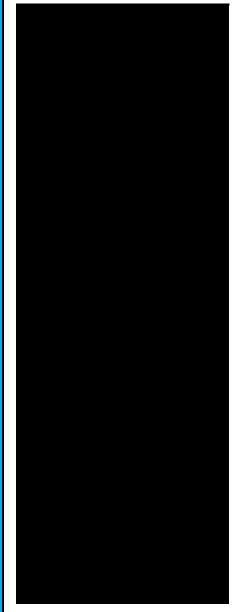
 PSC Maillog
 227637

 Date
 11/25/2019

Tax Rate - State and Federal 27.52%
PEPCO amortizes over 6 years per filings, not 5 years
Pay off Unamortized Debt in 10 Years and Continue Program

Wholesale Revenues assumed to remain consistent Decrease Rate of Return/WACC to 7%
Performance Incentive Incorporated

No Dynamic Pricing program data in Filing



	2029 2030	2027 2028	2025 2026	2023 2024	2021	2020	Year	(1)	Comm'l	<u>Inputs</u> Residential	Scenario 5:
	\$ 25,551,316 \$ 25,551,316	\$ 25,551,316 \$ 25,551,316	\$ 25,551,316 \$ 25,551,316	\$ 25,551,316 \$ 25,551,316	\$ 25,551,316	\$ 25,551,316	Program Cost	(2)	\$ 25,551,316		Scenario 5: Performance Incentive with Longer Term Repayment Reduced ROR
10-Year Total 10-Yr Totals \$423,7 Modeled Rate of Return Add'l Return via Savings Adjusted Rate of Return	\$ 33,436,075 \$ 25,551,316	\$ 39,743,882 \$ 39,743,882	\$ 39,743,882 \$ 39,743,882	\$ 34,312,159 \$ 39,743,882	\$ 12,200,019 \$ 13,420,021	\$ 11,509,452	Amortization	(3)	25,551,316 \$ 11,509,452 \$ 62,125,839		tive with Longer T
282,606	• •	\$ 22,077,325 : \$ 7,884,759 :	\$ 50,462,456 ! \$ 36,269,890 !	\$ 78,847,588 ! \$ 64,655,022 !	\$ 75,477,136 \$ 87,608,431	\$ 62,125,839	Unamortized Balance Ret (Prior UB)+(2)- Utility (3) * (6) *	(4)	\$ 62,125,839		erm Repayment F
\$ 21,475,666 T		\$ 1,120,115 \$ 400,041	\$ 2,560,263 \$ 1,840,189	\$ 4,000,411 \$ 3,280,337	\$ 4,444,901	\$ 4,094,093	urn to , (.724	(5)			Reduced ROR
5,666 Total Savings @2% reduction/y 7.00% 50% of Savings to Ratepayers 5,322 50% of Savings to Utilities	7.00%	7.00% 7.00%	7.00% 7.00%	7.00% 7.00%	7.00%	9.09%	(4) Utility WACC/ 8) Rate of Return	(6)			
% reduction/y 0 Ratepayers 0 Utilities						_	Wholesale Revenue	(7)			
\$ (37, \$ 37, \$ 18, \$ 18,	\$ (5, \$ (4,	\$ (5, \$ (5,	\$ (4,	\$ (2, \$ (3,	· • • •	•	True Up	(8)	Revenues	Excess Ratepayer	
(37,045,590) 37,045,590 18,522,795 18,522,795	(5,558,822) (4,674,031)	(5,388,918) (5,990,958)	(4,064,549) (4,747,139)	(2,253,086) (3,340,049)	(320,589)		Ç p)	nues	itepayer	
	\$ 33,436,075 \$ 25,551,316	\$ 40,863,997 \$ 40,143,923	\$ 42,304,145 \$ 41,584,071	\$ 38,312,570 \$ 43,024,219		\$ 15,603,545	Ratepayer Revenue Requirement (10) * (11)	(9)	to Scenario 4b	Hold Constant	
	3,013,733,103 2,953,458,441	3,137,997,817 3,075,237,861	3,267,386,315 3,202,038,589	3,402,109,866 3,334,067,668	3,542,388,448	3,614,682,090	Projected Electricity Sales (kWh)	(10)	3614682090 2.0%	Annual Savings	
	0.00925007 0.00706876	0.01130500 0.01110580	0.01170342 0.01150421	0.01059915 0.01190263	0.00494232	0.00431671	Ratepayer Surcharge (3)+(5)+(7)+(8) / (10)	(11)	to Scenario 4b	Hold Constant	
	1000	1000 1000	1000	1000 1000	1000	1000	Average kWh/Month per Ratepayer	(12)			
v			\$ \$ 1			₩.	Estimated Monthly Bil Impact per Ratepayer	(13)			
8.92	9.25 \$ 7.07 \$	11.31 \$ 11.11 \$	11.70 \$ 11.50 \$	10.60 \$ 11.90 \$			_				
	111.00 84.83	135.66 133.27	140.44 138.05	127.19 142.83	59.31	51.80	Estimated Annual Bill Impact per Ratepayer	(14)			

Adjusted 10-Year Total

\$ 34,900,988

Utility SMECO

 Data Source
 9494

 PSC Case
 9494

 PSC Item
 177

 PSC Maillog
 227606

 Date
 11/22/2019

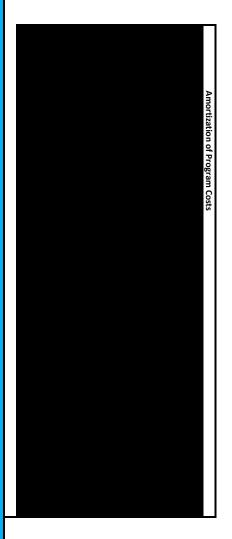
Notes

Tax Rate - State and Federal 0.00%

Unamortized Balance not available in filings; extrapolated from 4/19 CRWG report Pay off Unamortized Debt in 10 Years and Continue Program

Net Operating Costs only from Cool Sentry programs Wholesale Revenues assumed to remain consistent

Reduce Rate of Return/WACC to 5.10% Performance Incentive Incorporated



													Т		0	0 0	ת (I =	U
	2030	2029	2028	2027	2026	2025	2024	2023	2022	2021	2020	Year	(1)		Cool Sent - Cl	Comm'i Cool Sent- Res	Residential	<u>Inputs</u>	scendrio 5: Per
	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	Program Cost	(2)			\$ 10,429,/18 \$			ormance incent
10-Year Total	\$ 10,429,718	\$ 12,646,509	\$ 14,419,942	\$ 14,419,942	\$ 14,419,942	\$ 14,419,942	\$ 14,419,942	\$ 12,892,820	\$ 7,517,932	\$ 6,834,484	\$ 6,447,626	Amortization	(3)						ive with Longer
	\$ -	-γ-	\$ 2,216,791	\$ 6,207,016	\$ 10,197,240	\$ 14,187,465	\$ 18,177,689	\$ 22,167,914	\$ 24,631,015	\$ 21,719,229	\$ 18,123,995	Unamortized Balance Ret (Prior UB)+(2)- Utility (3) *	(4)			6,447,626 \$ 18,123,995	· · · · · · · · · · · · · · · · · · ·		scenario si Periormance incentive with conger Term Repayment Reduced ROK
\$ 6,094,722	\$.	\$ 113,056	\$ 316,558	\$ 520,059	\$ 723,561	\$ 927,062	\$ 1,130,564	\$ 1,256,182	\$ 1,107,681	\$ 1,109,188	Return to Utility (4) * (6)	(5)						r Reduced NOK
	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	5.10%	6.12%	Otility WACC /	(6)						
	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	Net Operating Utility WACC / Costs (Current Rate of Return Year Expense)	(7)		\$ 2,519,155				
												Wholesale Revenue	(8)						
																			_
\$ (13,805,511)	\$ (1,907,879)	\$ (2,102,510)	\$ (2,168,861)	\$ (1,943,368)	\$ (1,705,515)	\$ (1,454,976)	\$ (1,191,416)	\$ (824,687)	\$ (347,455)	\$ (158,843)	\$ 354,391	True Up	(9)	Revenues	\$ 583,264	\$ (228,873)		Execusion managed and ci-	Evcess Ratenaver
	❖	-ζ-	₩.	-ζ-	❖	-\$-	<	❖	❖	\$	354,391 \$	Ratepayer Revei Requirement * (12)	(9) (10)	Revenues to Scenario 4b				races included a recognition	
	\$ 10,429,718	\$ (2,102,510) \$ 12,646,509 1,099,335,706	\$ (2,168,861) \$ 14,532,999 1,121,771,128	\$ (1,943,368) \$ 14,736,500 1,144,664,416	\$ (1,705,515) \$ 14,940,002 1,168,024,915			\$ (824,687) \$ 14,023,383 1,241,005,995	\$ (347,455) \$ 8,774,114 1,266,332,648							(228,873)			Hold Constant
	\$ 10,429,718	\$ 12,646,509	\$ 14,532,999 1	\$ 14,736,500	\$ 14,940,002	\$ 15,143,503	\$ 15,347,005	\$ 14,023,383 1	\$ 8,774,114 :	\$ 7,942,164	354,391 \$ 7,911,205	Ratepayer Revenue Requirement (11) * (12)	(10)	to Scenario 4b					Hold Constant Annual Savings
	\$ 10,429,718 1,077,348,991	\$ 12,646,509 1,099,335,706	\$ 14,532,999 1,121,771,128	\$ 14,736,500 1,144,664,416	\$ 14,940,002 1,168,024,915	\$ 15,143,503 1,191,862,158	\$ 15,347,005 1,216,185,875	\$ 14,023,383 1,241,005,995	\$ 8,774,114 1,266,332,648	\$ 7,942,164 1,292,176,172	354,391 \$ 7,911,205 1,318,547,114	Ratepayer Revenue Projected Requirement (11) Electricity Sales * (12) (kWh)	(10) (11)	to Scenario 4b 2.0%		(228,873)		The constant and seeming	Hold Constant Annual Savings
	\$ 10,429,718 1,077,348,991 0.00791001	\$ 12,646,509 1,099,335,706 0.00959125	\$ 14,532,999 1,121,771,128 0.01102198	\$ 14,736,500 1,144,664,416 0.01117632	\$ 14,940,002 1,168,024,915 0.01133065	\$ 15,143,503 1,191,862,158 0.01148499	\$ 15,347,005 1,216,185,875 0.01163933	\$ 14,023,383 1,241,005,995 0.01063548	\$ 8,774,114 1,266,332,648 0.00665438	\$ 7,942,164 1,292,176,172 0.00602342	354,391 \$ 7,911,205 1,318,547,114 0.00599994	Ratepayer Ratepayer Revenue Projected Surcharge Average Requirement (11) Electricity Sales (3)+(5)+(7)+(8)+(kWh/Month * (12) (kWh) 9) / (10) per Ratepayer	(10) (11) (12) (13)	to Scenario 4b 2.0%		(228,873)		The constant and seeming	Hold Constant Annual Savings
(13,805,511)	\$ 10,429,718 1,077,348,991 0.00791001	\$ 12,646,509 1,099,335,706 0.00959125	\$ 14,532,999 1,121,771,128 0.01102198	\$ 14,736,500 1,144,664,416 0.01117632 1000 \$	\$ 14,940,002 1,168,024,915 0.01133065	\$ 15,143,503 1,191,862,158 0.01148499 1000	\$ 15,347,005 1,216,185,875 0.01163933 1000	\$ 14,023,383 1,241,005,995 0.01063548 1000	\$ 8,774,114 1,266,332,648 0.00665438 1000	\$ 7,942,164 1,292,176,172 0.00602342 1000	354,391 \$ 7,911,205 1,318,547,114 0.00599994	Ratepayer Ratepayer Revenue Projected Surcharge Requirement (11) Electricity Sales (3)+(5)+(7)+(8)+(* (12) (kWh) 9) / (10)	(10) (11) (12)	to Scenario 4b 2.0%		(228,873)		The constant and seeming	Hold Constant Annual Savings
(13,805,511) \$	\$ 10,429,718 1,077,348,991 0.00791001 1000 \$	\$ 12,646,509 1,099,335,706 0.00959125 1000 \$	\$ 14,532,999 1,121,771,128 0.01102198 1000 \$	\$ 14,736,500 1,144,664,416 0.01117632 1000 \$	\$ 14,940,002 1,168,024,915 0.01133065 1000 \$	\$ 15,143,503 1,191,862,158 0.01148499 1000 \$	\$ 15,347,005 1,216,185,875 0.01163933 1000 \$	\$ 14,023,383 1,241,005,995 0.01063548 1000 \$	\$ 8,774,114 1,266,332,648 0.00665438 1000 \$	\$ 7,942,164 1,292,176,172 0.00602342 1000 \$	354,391 \$ 7,911,205 1,318,547,114 0.00599994 1000 \$	Ratepayer Ratepayer Revenue Projected Surcharge Average Requirement (11) Electricity Sales (3)+(5)+(7)+(8)+(kWh/Month * (12) (kWh) 9) / (10) per Ratepayer	(10) (11) (12) (13)	to Scenario 4b 2.0%		(228,873)		The constant and seeming	Hold Constant Annual Savings

Adjusted 10-Year Total

\$ 12,997,478

Add'l Return via Savings Adjusted Rate of Return

> 6,094,722 5.10% 6,902,755

Total Savings @2% reduction/yr 50% of Savings to Ratepayers 50% of Savings to Utilities

\$ 13,805,511 \$ 6,902,755 \$ 6,902,755

10-Yr Totals \$119,5 Wodeled Rate of Return

Utility Washington Gas & Light

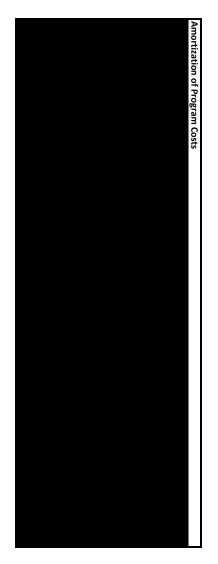
Data Source PSC Case Date PSC Maillog PSC Item 11/18/2019 227417 9494 171

Pay off Unamortized Debt in 10 Years and Continue Program Tax Rate - State and Federal 27.52%

Wholesale Revenues assumed to remain consistent No Dynamic Pricing program data in Filing

Decrease Rate of Return/WACC to 7% Monthly therm estimate based on total Res and C&I accounts (492,943)

Performance Incentive Incorporated



	2020 2021 2021 2022 2023 2024 2025 2026 2026 2027 2028 2028 2029	(1) Year	Scenario 5: Finputs Residential Commercial
	\$ 1,507,360 \$ 1,507,360	(2) Program Cost	Scenario 5: Performance Incentive with Longer Term Repayment Reduced ROR Inputs Residential Commercial 1507360 853927 \$ 6,319,836
10-Year Total 10-Yr Totals \$ 36,7 Modeled Rate of Return Add'l Return via Savings Adjusted Rate of Return	\$ 853,927 \$ \$ 905,163 \$ \$ 995,679 \$ \$ 2,250,731 \$ \$ 2,711,622 \$ \$ 2,711,622 \$ \$ 2,711,622 \$ \$ 2,711,622 \$ \$ 2,711,622 \$ \$ 2,711,622 \$ \$ 2,711,639 \$ \$ 1,507,360 \$	(3) U Amortization	ve with Longer Terr
\$ 36,433,880 \$ iturn \$	6,319,836 \$ 6,922,033 \$ 7,433,714 \$ 6,690,343 \$ 5,486,081 \$ 4,281,820 \$ 3,077,558 \$ 1,873,296 \$ 669,034 \$ - \$ \$	(4) Unamortized Balance Rete (Prior UB)+(2)- Utility (3) * (6) *	n Repayment Rec
1,848,509 1,848,509 7.00% 509 902,429 10.42%	440,655 351,196 377,157 339,441 278,342 217,242 1156,143 95,044 33,944	(5) urn to (4)	duced ROR
8,509 Total Savings @2% reduction/yr7,00% 50% of Savings to Ratepayers 5,429 50% of Savings to Utilities	9.62% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00% 7.00%	(6) Utility WACC / Rate of W Return I	
\$ reduction/yr \$ atepayers \$ tilities \$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	(7) Wholesale Revenue	Exc
(2,490,146) 2,490,146 1,245,073 1,245,073	\$ (25,127) \$ (54,364) \$ (152,323) \$ (232,116) \$ (281,403) \$ (327,377) \$ (370,127) \$ (361,830) \$ (275,737) \$	(8) True Up	Excess Ratepayer Revenues
	1,294,582 1,256,359 1,372,836 2,590,173 2,989,964 2,928,864 2,928,864 2,867,765 2,806,665 2,745,566 2,176,394 1,507,360	(9) Ratepayer Revenue Requirement (10) * (11)	Hold Constant A
	334,761,000 328,065,780 321,504,464 315,074,375 308,772,888 302,597,430 296,545,481 290,614,572 284,802,280 279,106,235 273,524,110	(10) Projected Gas Sales (Therms)	Annual Savings 334,761,000 2.0%
	0.00386718 0.00375300 0.00410094 0.00773738 0.00893164 0.00874912 0.00856660 0.00838409 0.00820157 0.00650134 0.00450279	(11) Ratepayer Surcharge (3)+(5)+(7)+(8) / (10)	Hold Constant to Scenario 4b
	57 57 57 57 57 57 57	Average Therm/Month per Ratepayer	
\$ 0.38	\$ 0.22 \$ 0.21 \$ 0.23 \$ 0.44 \$ 0.50 \$ 0.50 \$ 0.50 \$ 0.48 \$ 0.48 \$ 0.46 \$ 0.47 \$ 0.46	(13) Estimated Monthly Bill Impact per Ratepayer	
w	2 \$ 2.63 1 \$ 2.55 8 \$ 2.78 4 \$ 5.25 1 \$ 6.07 0 \$ 5.94 8 \$ 5.82 7 \$ 5.82 5.82 5.82 5.82 5.82 5.82 5.82 5.82	(14) Estimated Annual Bill Impact per Ratepayer	

Adjusted 10-Year Total

\$ 2,750,938

Performance-Based Option 5b Residential Sector Analysis

All EmPower Utilities - Res Only

	Ç	¢	
PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

		Note: ROR capped at 2% above Current WACC/ROR	Note: ROF	10.50%	9.25%	9.26%	9.25%	Overall
			No	10.91%	9.51%	8.51%	9.51%	BGE
formula	Yes	Savings Split Triggered by this Scenario?	No	10.00%	9.09%	8.09%	9.09%	Potomac Ed
fixed	110%	Savings Split Triggered for Exceeding Goal by:	No	7.37%	6.12%	5.12%	6.12%	SMECO
		(Note: do not enter zero)	No	9.75%	8.57%	7.57%	8.57%	DPL
input	2.70%	Scenario Percentage Utility Sales Reduction	No	10.69%	9.29%	8.29%	9.29%	PEPCO
fixed	2.00%	EmPOWER Goal for Annual Utility Sales Reduction	No	10.59%	9.62%	8.62%	9.62%	WG&L
		Assumptions	Triggered?	Savings (if applic.)	reduction)	reduction)	WACC/ROR	Utility
			ROR Cap	After Split of	(>=1.8%	(<1.8%	Current	
				Adjusted ROR	>=90% of Goal	<90% of Goal		
					WACC/ROR at	WACC/ROR at		
					Baseline	Baseline		
			incentive iviogei	Performance-Based Incentive Model				

Note Regarding Amortization of Program Costs

Amortization (Column 3) is increased during 2021-2024 timeframe to new baseline that is approx. 50% above annual Program Costs (Column 2) to achieve accelerated paydown of Unamortized Balance (Column 4)

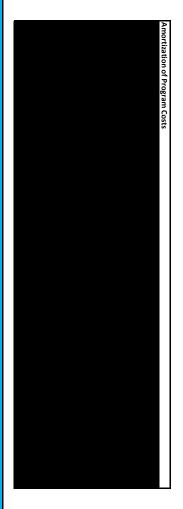
Year 2020 2021 2022 2023 2024 2025 2025 2025 2025 2025 2025 2025		
30 30 30 30 30 30 30 30 30 30 30 30 30 3		(1)
Program Cost \$ 136,910,545 \$ 136,910,545 \$ 136,910,545 \$ 136,910,545 \$ 136,910,545 \$ 136,910,545 \$ 136,910,545 \$ 136,910,545 \$ 136,910,545 \$ 136,910,545		(2)
Amortization (Prior)+(2) \$124,699,894 \$ 480,856 \$132,181,888 \$ 485,848 \$145,400,076 \$ 477,959 \$1214,200,008 \$ 322,966 \$214,200,008 \$ 127,806 \$214,200,008 \$ 127,806 \$214,200,008 \$ 127,806 \$214,200,008 \$ 120,228 \$214,200,008 \$ 42,938 \$136,910,545 \$ 10-Year Total 10-Yr Totals \$179,849,135 \$ 10-Year Total 10-Yr Totals \$2,379,653 Modeled Rate of Return Addiff Return via Svgs (aft.tax) Modeled Rate of Return Addiff Return via Svgs (aft.tax) Adjusted Rate of Return Addiff Return via Svgs (aft.tax) Adjusted Rate of Return Addiff Return via Svgs (aft.tax) Adjusted Rate of Return Addiff Return via Svgs (aft.tax) Adjusted Rate of Return Addiff Return via Svgs (aft.tax) Adjusted Rate of Return Addiff Return via Svgs (aft.tax)		(3)
Amoritzation (Prior)+(2)-(3) (4)*(6)*(.7248) Rate of Return \$124,699,894 \$ 480,856,323 \$ 32,227,731 9.25% \$122,181,888 \$ 485,584,980 \$ 32,207,931 9.25% \$124,200,008 \$ 447,095,449 \$ 32,000,996 9.26% \$214,200,008 \$ 29,385,904 \$ 28,818,897 9.26% \$214,200,008 \$ 197,517,516 \$ 13,256,692 9.26% \$214,200,008 \$ 120,228,053 \$ 8,069,291 9.26% \$214,200,008 \$ 120,228,053 \$ 8,069,291 9.26% \$214,200,008 \$ 42,938,590 \$ 2,881,890 9.26% \$214,200,008 \$ 42,938,590 \$ 2,881,890 9.26% \$214,200,008 \$ 42,938,590 \$ 2,881,890 9.26% \$179,849,135 \$ 42,938,590 \$ 2,881,890 9.26% \$179,849,135 \$ 42,938,590 \$ 2,881,890 9.26% \$179,849,135 \$ 42,938,590 \$ 2,881,890 9.26% \$179,849,135 \$ 9,26% \$ 10,50% \$10,707 Totals \$ 2,379,653,913 <	Unamortized Balance	(4)
(4)*(6)*(.7248) \$ 32,227,731 \$ 32,526,231 \$ 32,526,692 \$ 13,244,094 \$ 13,246,997 \$ 23,631,495 \$ 2,8818,897 \$ 2,8818,897 \$ 2,881,890 \$ 3,881,890 \$ 2,881,890 \$ 3,88	Return to Utility	(5)
Rate of Return 9.25% 9.25% 9.26% 9.26% 9.26% 9.26% 9.26% 9.26% 9.26% 9.26% 9.26% 9.26% 9.26%	Imputed Utility	(6)
	Net Operating Costs (Current	(7)
Credit Revenue \$ (4,870,265) \$ (9,637,03 \$ (4,870,265) \$ (9,637,03 \$ (4,870,265) \$ (9,637,03 \$ (9,637,03) \$ (Federal Tax	(8)
9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035) (9,637,035)	Wholesale	(9)
True Up Requir \$ (2.633.700) \$ 198. \$ (11,781.434) \$ 221. \$ (11,781.434) \$ 221. \$ (20,657,991) \$ 262, \$ (29,705,142) \$ 286, \$ (41,810.450) \$ 276, \$ (47,230,873) \$ 270, \$ (44,820,249,247) \$ 265, \$ (44,422,586) \$ 276, \$ (44,422,586) \$ 286, \$ (339,343,008) \$ 2,486, \$ 339,343,008) \$ 2,486, \$ 399,844,443 \$ 399,844,443 \$ 399,844,443		Revenues (10)
	Ratepayer Revenue	Opt 4 @ WACC
Ratepayer \$ 6.31 \$ 6.65 \$ 7.05 \$ 9.13 \$ 8.89 \$ 8.80 \$ 8.64 \$ 7.28 \$ 5.91 \$ 7.78 \$ 7.78 \$ 7.78 \$ 9.77 \$ 9.77 \$ 9.77 \$ 9.77 \$ 9.77 \$ 9.77 \$ 9.77 \$ 9.77 \$ 9.77 \$ 9.77 \$ 9.77	Estimated Monthly Bill Impact per	(12)
Ratepayer Rate	Estimated Annual Bill Impact per	(13)
Req Req S 3 5 2 5 5 2 5 5 2 5 5		Saving
Requirement 315,335,060 203,345,791 210,401,347 243,183,87 249,313,774 248,40,760 227,746,741 217,976,467 112,904,944 144,952,569 2,176,111,066 0,00 t (see box above)	Ratepayer Revenue	s Applied to
nnt Ratepayer ,060 \$ 4.99 ,060 \$ 6.79 ,060 \$ 6.79 ,060 \$ 6.75 ,771 \$ 6.75 ,774 \$ 7.26 ,741 \$ 7.26 ,741 \$ 7.26 ,741 \$ 5.83 ,569 \$ 4.62 ,066 \$ 6.76 ,000 check bove) subject to RC	Estimated Monthly Bill Impact per	Savings Applied to Ratepayers
Ratepayer 5 59.91 5 77.79 5 80.49 5 93.03 5 95.02 5 91.02 5 87.12 5 83.39 5 69.97 5 55.45	Estimated Annual Bill Impact per	91.32%

Utility **Baltimore Gas and Electric**

Data Source PSC Case PSC Item PSC Maillog Date 11/18/2019 227547 9494 181

Notes
Tax Rate - State and Federal 27.52%
Pay off Unamortized Debt in 10 Years
Net Operating Costs only from Peak Rewards Riders 15 and 56
Wholesale Revenues assumed to remain consistent

Performance Incentive Incorporated



Indicates Sci.472,238 Sci.424,233 Sci.1298,151 Sci.476,000 Sci.469,000 Sci.476,000 S	82		I Savings (from above)	1018					
S S2,472,238 S 48,424,233 S 121,928,151 S 36,791,698 S 36,791,693 S 36,791,693 S 36,791,693 S 36,791,798 S 36,791,799 S 36,791,798 S	611	\$ (159,008,176)		Tota	\$ 68.141.835				
S S2,472,238 S S48,424,233 S 121,928,151 S 36,791,698 S 1,642,675 S 651,689 S 1,642,675 S 1,64	11	\$ (159,008,176)		1					
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ \$ 1,542,675 \$ \$ (1,642,675) \$ 651,689 Fine trial thrent					\$ 68,141,835		10-Year Total		
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ \$ 36,791,698 Finertial thrent		\$	s	9.51%	•	,	Ş	\$ 52,472,23	2030
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ \$ 1,642,675 \$ 651,689 Frencial thment the state of the sta		⟨\$	\$	9.51%	٠,		s	\$ 52,472,23	2029
The control of the		⇔	\$	9.51%	\$ 1,228,976	17,829,726	ş	\$ 52,472,23	2028
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ \$ (1,642,675) \$ (1,642,675) \$ (51,689) Inercial the thrent thren		(21,883,588) \$	⊹	9.51%	\$ 3,441,133	49,923,233	s	\$ 52,472,2	2027
### S 52,472,238 \$ 48,424,233 \$ 121,928,151 ### S 5		↔	-γ-	9.51%	\$ 5,653,289	82,016,740	ş	\$ 52,472,23	2026
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ \$ 1,642,675 \$ 651,689 Finercial thment thment the state of		\$	↔	9.51%	\$ 7,865,446	114,110,247	s	\$ 52,472,2	2025
Statepayer Hold Constant A Rewnues Statepayer Frue Up Costs (Current Program Cost Amortization UB)+(2)-(3) (4)*(5)*(7248) Rate of Return Vear Expense) Statepayer Cost Costs (Current Cost		\$	φ.	9.51%	\$ 10,077,603	146,203,754	s	\$ 52,472,2	2024
S S S S S S S S S S		\$	\$	9.51%	\$ 12,289,759	178,297,261	s	\$ 52,472,2	2023
S S S S S S S S S S		↔	\$	9.51%	\$ 13,655,288	198,108,067	ψ.	\$ 52,472,2	2022
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ \$ (1,642,675) \$ 651,689 Figure 14 Figure 15 Fig		↔	\$	9.51%	\$ 13,930,341	202,098,485	s	\$ 52,472,2	2021
State Stat		₩	₩	9.51%	\$ 13,851,587	200,955,934	s	\$ 52,472,2	2020
### S 2,472,238 \$ 48,424,233 \$ 121,928,151 ### \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 ### \$ \$ 79,027,783 ### \$ \$ 79,027,783 ### \$ \$ 79,027,783 ### \$ \$ \$ 36,791,698 ### \$ \$ 2,351,019 ### Excess Ratepayer Hold Constant A Revenue Prior Return to Utility Utility WACC Costs (Current Wholesale Requirement Requirement			ľ			UB)+(2)-(3)		Program Co	Year
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ (1,642,675) \$ 651,689 Inercial thrent ### Society of the content of the con	equirement	Requi			Return to Utility	Š	Bal		
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ (1,642,675) \$ 651,689 mercial thrent \$ 79,027,783 \$ 36,791,698	naver Revenue	Ratonavo	+ Operating	N.		Inamortized			
S 1,642,675 \$ 651,689				(6)	(5)	(4)	(3)	(2)	(1)
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ (1,642,675) \$ 651,689 mercial thrent \$ 79,027,783 \$ 36,791,698 Rew 15 \$ 79,027,783 \$ 2,351,019 ir Rew 56 \$ 2,351,019									
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ (1,642,675) \$ 651,689 mercial thrent \$ 79,027,783 \$ 36,791,698 in	incl. above		2,351,019	❖					Peak Rew 56
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ (1,642,675) \$ 651,689 transit	incl. above		36,791,698	❖		79,027,783	\$		Peak Rew 15
ential \$ 52,472,238 \$ 48,424,233 \$ 121,928,151 \$ (1,642,675) \$ 651,689									Commercial Adiustment
	12,245,506,0		\$ (1,642,675)			121,928,151	\$ 48,424,233		Residential

Adjusted 10-Year Total Adjusted Rate of Return

\$ 78,141,873

10.91%

Is Adjusted ROR > 2% over WACC		No
If "Yes", Adjusted ROR capped at:		11.51%
Adjusted Util. Return via Svgs.	⊹	,
Check		9.51%

ROR Cap Adjusted Savings to Utilities (i	ties (if app	plic.)
Total Savings (from above)	\$	159,008,176
ROR Cap Triggered?		No
Adj. Savings to Utils (if applic.)	\$	

Application of ROR Cap		
Savings to Utilities (if applicable)	\$	13,796,963
savings to Ratepayers	\$	145,211,214
savings to Utilities (if applicable) savings to Ratepayers	**	13,796, 145,211,

Utility **Delmarva Power and Light**

Data Source
PSC Case
PSC Item
PSC Maillog
Date 11/15/2019 9494 175 227501

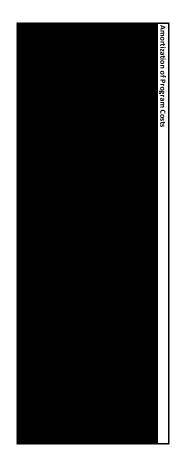
Notes Tax Rate - State and Federal

Netted out CIF merger contributions for 2018-2020 for projection purposes Federal Tax Credit ends in 2022

Pay off Unamortized Debt in 10 Years and Continue Program

Wholesale Revenues assumed to remain consistent Net Operating Costs only from Dynamic Pricing and Direct Load Control

Performance Incentive Incorporated



		2030	2029	2028	2027	2026	2025	2024	2023	2022	2021	2020	Year			(1)		DL-C&I	DL - Resid	DP - Resid	C&I	<u>Inputs</u> Residential	Concilia
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	P						\$			φ.	o o
		9,164,164	9,164,164	9,164,164	9,164,164	9,164,164	9,164,164	9,164,164	9,164,164	9,164,164	9,164,164	9,164,164	Program Cost			(2)			1,355,985			7,808,179	merbased me
10-Yr Totals \$ 137,48: Modeled Rate of Return Add'l Return via Savings (after tax) Adjusted Rate of Return	10 V-1-1-1-1	\$ 9,164,164	\$ 11,580,708	\$ 13,513,943	\$ 13,513,943	\$ 13,513,943	\$ 13,513,943	\$ 13,513,943	\$ 11,849,213	\$ 13,206,851	\$ 12,006,228	\$ 11,326,630	Amortization			(3)			\$ 1,490,433			\$ 9,836,197 \$	оркон з. геноппансе вазеа постаме мин вондет тели пераўтистк
\$ of Return of Return of Return		.64 \$	708 \$)43 \$)43 \$	943 \$)43 \$)43 \$	13 \$	351 \$	28 \$	30 \$	n	Ва					33 \$.97 \$	60
137,489,615 m ss (after tax)				2,416,544	6,766,323	11,116,102	15,465,881	19,815,661	24,165,440	26,850,489	30,893,175	33,735,239	UB)+(2)-(3)	Balance (Prior	Unamortized	(4)			7,237,585			26,497,654	ii nepayiiieiit
ψ ψ ψ	>	\$	ş	\$	\$	\$	\$	\$	\$	\$	\$	\$	(4)						01			+	
8,538,105 8,538,105 8.57% 1,181,314 9,75%				150,067	420,189	690,310	960,431	1,230,553	1,500,674	1,667,415	1,918,466	2,094,958	(4) * (6) * (.7248)	Return to Utility		(5)							
		8.57%	8.57%	8.57%	8.57%	8.57%	8.57%	8.57%	8.57%	8.57%	8.57%	8.57%	Rate of Return	Utility WACC /		(6)							
		φ.	s	s	s	↔	s	s	s	↔	❖	↔	Year	Cost	Net				φ.	\$			
Tc Sa Sa		3,684,529	3,684,529	3,684,529	3,684,529	3,684,529	3,684,529	3,684,529	3,684,529	3,684,529 \$	3,684,529 \$	3,684,529 \$	Year Expense)	Costs (Current	Net Operating	(7)			2,484,529 \$	1,200,000		.	
Total Savings (from above) Savings Split Triggered? Savings to Utilities (If applicable) Savings to Ratepayers										(1,193,048)	(1,193,048)	(1,193,048)	Credit	Federal Tax		(8)			(293,713) \$			(899,335) \$	
n above) ered? (if applicable) vers		\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	\$ (2,755,732)	Revenue	Wholesale		(9)			(1,501,728)	\$ (931,241)		\$ (322,763) \$	
\$ 18,769,559 \$ 18,769,559 Yes \$ 1,629,849 \$ 17,139,711		\$ (2,416,748)	\$ (2,731,378)	\$ (2,869,732)	\$ (2,591,524)	\$ (2,291,912)	\$ (1,970,130)	\$ (1,625,386)	\$ (1,125,627)	\$ (778,290)	\$ (368,832) \$	\$ (562,043)	True Up			(10)	Excess Ratepayer Revenues			\$ (448,351)		\$ 186,971	
110% Target \$ (14,179,528) 100% Target \$ (14,179,528) If Yes, Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap		\$ 10,092,961	\$ 12,509,505	\$ 14,592,808	\$ 14,862,929	\$ 15,133,050	\$ 15,403,171	\$ 15,673,293	\$ 14,278,684	\$ 14,610,015	\$ 13,660,443	\$ 12,595,294	(12) * (13)	Requirement	Ratepayer Revenue	(11)	Opt 4 @ WACC						
100% Target 100% of Savings i	1100/ H	1,637,569,538	1,683,010,831	1,729,713,084	1,777,711,289	1,827,041,407	1,877,740,397	1,929,846,246	1,983,397,992	2,038,435,757	2,095,000,778	2,153,135,435	(kWh)	Е	Projected	(12)	Annual Savings 2.70%		incl. above	incl. above		2153135435	
\$ (14,179,528) \$ (14,179,528) n excess of 110% 1		0.00468756	0.00580990	0.00677747	0.00690292	0.00702838	0.00715383	0.00727929	0.00663158	0.00678546	0.00634444	0.00584975		(3)	Ratepayer Surcharge	(13)	Opt 4 @ WACC						
arget (see box at		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	per Ratepayer	kWh/Month	Average	(14)							
bove) sı		\$	\$.	\$	\$	↔	\$	↔	Υ.	\$	ψ.	\$	Rat	Į m p	Mon Est								
ubject to ROF		4.69 \$	5.81 \$	6.78 \$	6.90 \$	7.03 \$	7.15 \$	7.28 \$	6.63 \$	6.79 \$	6.34 \$	5.85 \$			Estimated E Monthly Bill A	(15)							
Сар		56.25	69.72	81.33	82.84	84.34	85.85	87.35	79.58	81.43	76.13	70.20	Ratepayer	mpact per	Estimated Annual Bill	(16)							

Adjusted 10-Year Total

9,719,419

Is Adjusted ROR > 2% over WACC		Z
f "Yes", Adjusted ROR capped at:		10.57%
Adjusted Util. Return via Svgs.	↔	
Check		8.57%

Total Savings (from above)	s	18,769,559
ROR Cap Triggered?		No
Adj. Savings to Utils (if applic.)	\$	

Application of ROR Cap	
Savings to Utilities (if applicable)	\$ 1,629,849
Savings to Ratepayers	\$ 17,139,711

Utility PEPCO

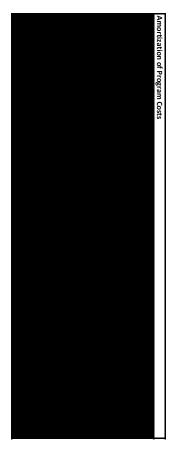
Data Source
PSC Case
PSC Item
PSC Maillog Date 11/15/2019 9494 174 227502

Tax Rate - State and Federal 27.52%

Residential program costs reduced by WGL Billing Coord. amt. (\$1,682,363) Federal Tax Credit ends in 2022

Pay off Unamortized Debt in 10 Years and Continue Program
Net Operating Costs only from Dynamic Pricing and Direct Load Control
Wholesale Revenues assumed to remain consistent

Performance Incentive Incorporated



	2020 2021 2021 2022 2023 2024 2025 2025 2026 2027 2028 2029 2030	Inputs Residential C&I DP-Resid DL-Resid DL-C&I CL (1) Year	Outlan 5. Do
	\$ 25,868,778 \$ 25,868,778 \$ 25,868,778 \$ 25,868,778 \$ 25,868,778 \$ 25,868,778 \$ 25,868,778 \$ 25,868,778 \$ 25,868,778 \$ 25,868,778	\$ 20,473,677 \$ 5,395,101 \$ 7,395,101	f
10-Year Total 10-Yr Totals S 392,091,6 Modeled Rate of Return Add'l Return via Savings (after tax) Adjusted Rate of Return		\$ 23,809,883 \$ 4,964,191 \$ 4 ,964,191	the state of the s
392,091,647 eturn vings (after tax)	89,659,580 85,027,840 77,346,047 69,611,443 57,081,383 44,551,323 32,021,264 19,491,204 6,961,144	\$ 62,201,419 \$ 27,458,161 \$ 27,458,161 Unamortized Unamortized Unamortized Unamortized Unamortized	T- Donound ph
\$ 26,386,858 \$ 26,386,858 \$ 9.29% \$ 3,992,057 \$ 10.69%	\$ 6,033,882 \$ 5,722,176 \$ 5,205,210 \$ 4,684,689 \$ 3,841,445 \$ 2,998,201 \$ 2,154,957 \$ 1,311,713 \$ 468,469 \$ 468,469	(5) Return to Utility (4) * (6) * (.7248)	
o. 6.	9.29% 9.29% 9.29% 9.29% 9.29% 9.29% 9.29% 9.29% 9.29% 9.29% 9.29% 9.29%	(6) Utility WACC /	
		\$ 2,698,445 \$ 12,720,912 \$ 17,720,912 (7) Net Operating Costs (Current Year Expense)	
Total Savings (from above) Savings Spilt Triggered? Savings to Utilities (if applicable) Savings to Ratepayers	\$ (3,677,217) \$ \$ (3,677,217) \$ \$ \$ (3,677,217) \$ \$ \$ (3,677,217) \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ (2,503,714) \$ \$ \$ (1,173,503) \$ \$ \$ (1,173,503) \$ \$ \$ Credit	
s above) \$ sered? (if applicable) \$ sers \$	(5,238,628) \$ (5,238,628) \$ (5,238,628) \$ (5,238,628) \$ (5,238,628) \$ (5,238,628) \$ (5,238,628) \$ (5,238,628) \$ (5,238,628) \$ (5,238,628) \$ (5,238,628) \$	(887,955) (679,383) (3,671,290) (9)	
(63,470,363) 63,470,363 Yes 5,507,805 57,962,558		\$ 85,730 \$ (1,526,260) \$ (860,145) \$ (860,145) Excess Ratepayer Revenues (10)	
Yes, Utilities recei	\$ 39,010,793 \$ 42,726,207 \$ 42,59,292 \$ 48,468,800 \$ 52,421,011 \$ 51,577,767 \$ 50,734,523 \$ 49,048,036 \$ 49,048,036 \$ 49,048,036 \$ 49,048,036 \$ 43,010,651 \$ 36,049,507	Hold Constant Opt 4 @ WACC (11) Ratepayer Revenue Requirement (12) * (13)	
110% Target \$ (52,454,752) 100% Target \$ (47,958,187) 16 Yes. Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap	5,522,043,269 5,372,948,101 5,227,878,502 5,086,725,782 4,949,384,186 4,815,750,813 4,685,725,541 4,555,210,952 4,446,112,256 4,316,337,225 4,199,796,120	5522043269 incl. above incl. above Annual Savings 2.70% (12) Projected Electricity Sales (kwh)	
\$ (52,454,752) \$ (47,958,187) in excess of 110%1	0.00706456 0.00773739 0.00819611 0.00877733 0.00949305 0.00934034 0.00918764 0.0090888223 0.00888223 0.00778890 0.00652829	Hold Constant Opt 4@ WACC (13) Ratepayer Surcharge (3)+(5)+(7)+(8)+(
Target (see box a	1000 1000 1000 1000 1000	(14) Average Average kWir/Month per Rate payer	
ove) subject i	7.06 \$ 7.06 \$ 8.78 \$ 8.78 \$ 9.49 \$ 9.34 \$ 9.34 \$ 7.79 \$ 6.53	(15) Estimated Monthly Bill Impact per	
to ROR Cap	0 4 0 8 0 4 0 0 8 0 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	(16) Estimated II Annual Bill Impact per Ratepayer	

Adjusted 10-Year Total

s

30,378,916

How cabben at Ely appear carrette savect wou	20/101	
Is Adjusted ROR > 2% over WACC		No
If "Yes", Adjusted ROR capped at:		11.29%
Adjusted Util. Return via Svgs.	\$	ì
Check		9.29%

57,962,558	\$	Savings to Ratepayers
5,507,805	\$	Savings to Utilities (if applicable) \$
		Application of ROR Cap
	\$	Adj. Savings to Utils (if applic.)
No		ROR Cap Triggered?
63,470,363	\$	Total Savings (from above)
(if applic.)	tilities	ROR Cap Adjusted Savings to Utilities (if applic.)

Application of ROR Cap	
Savings to Utilities (if applicable)	\$ 5,507,805
Savings to Ratepayers	\$ 57,962,558

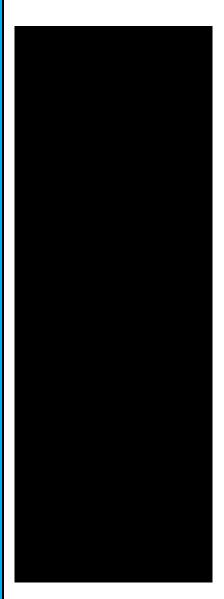
Utility **Potomac Edison**

Data Source PSC Case Date PSC Maillog PSC Item 11/25/2019 227637 9494 179

PEPCO amortizes over 6 years per filings, not 5 years Pay off Unamortized Debt in 10 Years and Continue Program Notes
Tax Rate - State and Federal 27.52%

Wholesale Revenues assumed to remain consistent No Dynamic Pricing program data in Filing

Performance Incentive Incorporated



Inputs

\$ 25,454,331 \$ 19,435,856 \$ 95,005,356

3320026453

Comm'l Residential

					2030	2029	2028	2027	2026	2025	2024	2023	2022	2021	2020	Year				(1)		
					\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	\$ 25,454,331	Program Cost				(2)		
Add'l Return via Savings (after ta Adjusted Rate of Return	Modeled Rate of Return	10-Yr Totals		10-Year Total	\$ 25,454,331	\$ 34,692,813	\$ 42,083,599	\$ 42,083,599	\$ 42,083,599	\$ 42,083,599	\$ 42,083,599	\$ 35,719,311	\$ 22,662,208	\$ 20,602,007	\$ 19,435,856	Amortization				(3)		
Savings (after ta Return	Return	\$ 507,377,396			₹	\$ -	\$ 9,238,482	\$ 25,867,750	\$ 42,497,018	\$ 59,126,286	\$ 75,755,554	\$ 92,384,822	\$ 102,649,803	\$ 99,857,680	\$ 95,005,356	(3)	(Prior UB)+(2)-	Balance	Unamortized	(4)		
\$ 3,326,407 10.00%	9.09%	\$ 33,436,170		\$ 33,436,170	⋄	·	\$ 608,816	\$ 1,704,685	\$ 2,800,554	\$ 3,896,422	\$ 4,992,291	\$ 6,088,160	\$ 6,764,622	\$ 6,580,621	\$ 6,260,853	* (6) * (.7248) Rate of Return	Utility (4)	Return to		(5)		
3,326,407 Savings to Utilities (if applicable 10.00% Savings to Ratepayers	9.09% Savings Split Triggered?	33,436,170 Total Savings (from above)			9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	Rate of Return	(4) Utility WACC /			(6)		
es (if applicable ayers	gered?	m above)														Revenue	Wholesale			(7)		
\$ \$		\$·		\$ (5	⋄	\$		-\$	\$.	\$.	\$	\$.	\$.	❖		Į.					Rev	Excess
4,589,413 48,269,262	Yes	52,858,675		(52,858,675)	(6,095,011)	(7,574,974)	(8,395,627)	(7,634,995)	(6,797,740)	(5,881,037)	(4,881,968)	(3,295,795)	(1,567,597)	(733,931)		True Up				(8)	Revenues	Excess Ratepayer
	If Yes, l		='		↔	❖	↔	↔	↔	↔	↔	↔	↔	❖	∿	(10	Req	æ	Ra		Opt 4	Hold
	Jtilities receiv				25,454,331	34,692,813	42,692,415	43,788,284	44,884,153	45,980,021	47,075,890	41,807,471	29,426,830	27,182,628	25,696,709	(10) * (11)	Requirement	Revenue	Ratepayer	(9)	Opt 4 @ WACC	Hold Constant
	If Yes, Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap		100% Target	110% Target	2,525,049,793	2,595,117,979	2,667,130,502	2,741,141,318	2,817,205,877	2,895,381,168	2,975,725,764	3,058,299,860	3,143,165,324	3,230,385,739	3,320,026,453	Sales (kWh)	Projected Electricity (3)+(5)+(7)+(8) /			(10)	2.70%	Annual Savings
	cess of 110% Targ		\$ (39,933,639)	\$ (43,679,849)	0.00766691	0.01044956	0.01285906	0.01318914	0.01351922	0.01384929	0.01417937	0.01259251	0.00886343	0.00818747	0.00773991	(10)	(3)+(5)+(7)+(8)/	Surcharge	Ratepayer	(11)	Opt 4 @ WACC	Hold Constant
	et (see box above				1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	per Ratepayer	kWh/Month	Average		(12)		
	<u> </u>				⋄	⋄	❖	❖	❖	❖	❖	❖	❖	❖	❖	Rate	Impa	Monti	Estin	(1		
	t to ROR				7.67	10.45	12.86	13.19	13.52	13.85	14.18	12.59	8.86	8.19	7.74	Ratepayer	Impact per	Monthly Bill	Estimated	(13)		
	Cap				❖	\$	❖	❖	❖	❖	❖	❖	❖	❖	❖	Rate	Impa	Annual Bill	Estimated	(1		
					92.00	125.39	154.31	158.27	162.23	166.19	170.15	151.11	106.36	98.25	92.88	Ratepayer	Impact per	al Bill	nated	(14)		

ROR capped at 2% above Current WACC/ROR
IS Adjusted ROR > 2% over WACC
If "Yes", Adjusted ROR capped at
Adjusted Util. Return via Svgs.
5 9.09%

ROR Cap Adjusted Savings to Utilities (if applic.) Total Savings (from above) \$ 52,858,675 ROR Cap Triggered? No Adj. Savings to Utils (if applic.) \$ -

Application of ROR Cap
Savings to Utilities (if applicable)
Savings to Ratepayers 4,589,413 48,269,262

Utility SMECO

 Data Source
 9494

 PSC Case
 9494

 PSC Item
 177

 PSC Maillog
 227606

 Date
 11/22/2019

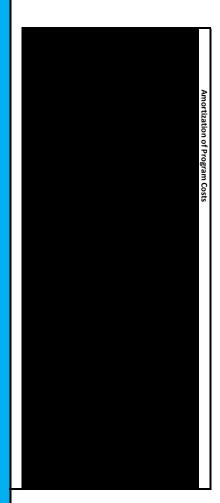
Notes

Tax Rate - State and Federal 0.00%

Unamortized Balance not available in filings; extrapolated from 4/19 CRWG report Pay off Unamortized Debt in 10 Years and Continue Program

Net Operating Costs only from Cool Sentry programs Wholesale Revenues assumed to remain consistent

Performance Incentive Incorporated



tion 5: Performance-Based Incentive with Longer Term Repaymen

		2029 2030	2028	2027	2026	2025	2024	2023	2022	2021	2020	Year	(1)		Cool Sent- Res	Inputs Residential
		\$ 14,007,234 \$ 14,007,234	\$ 14,007,234	\$ 14,007,234	\$ 14,007,234	\$ 14,007,234	\$ 14,007,234	\$ 14,007,234	\$ 14,007,234	\$ 14,007,234	\$ 14,007,234	Program Cost	(2)		8	\$ 14,007,234
10-Yr Totals	10-Year Total	\$ 17,191,289 \$ 14,007,234	\$ 19,738,534	\$ 19,738,534	\$ 19,738,534	\$ 19,738,534	\$ 19,738,534	\$ 17,545,073	\$ 14,678,596	\$ 13,344,178	\$ 12,588,847	Amortization	(3)			14,007,234 \$ 12,588,847 \$ 35,386,698
\$ 176,501,973		· · ·	\$ 3,184,055	\$ 8,915,355	\$ 14,646,655	\$ 20,377,954	\$ 26,109,254	\$ 31,840,553	\$ 35,378,393	\$ 36,049,754	\$ 35,386,698	Unamortized Retu Balance Retu (Prior UB)+(2)- Utility (3)	(4)			\$ 35,386,698
\$ 10,801,921	\$ 10,801,921	⋄ ⋄	\$ 194,864	\$ 545,620	\$ 896,375	\$ 1,247,131	\$ 1,597,886	\$ 1,948,642	\$ 2,165,158	\$ 2,206,245	\$ 2,165,666	(6)	(5)			
	_	6.12% 6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	Net Operating (4) Utility WACC / Costs (Current Rate of Return Year Expense)	(6)			
Total Savings (from above)		\$ 6,065,334 \$ 6,065,334	\$ 6,065,334	\$ 6,065,334	\$ 6,065,334	\$ 6,065,334	\$ 6,065,334	\$ 6,065,334	\$ 6,065,334	\$ 6,065,334	\$ 6,065,334	Net Operating Costs (Current Year Expense)	(7)		\$ 6,065,334	
												Wholesale Revenue	(8)			
\$ 25,440,282	\$ (25,440,282)	\$ (3,753,618) \$ (3,354,017)	\$ (3,919,979)	\$ (3,536,777)	\$ (3,125,173)	\$ (2,684,154)	\$ (2,212,676)	\$ (1,536,742)	\$ (897,284)	\$ (419,861)	\$ (422,671) \$	True Up	(9)	Excess Ratepayer Revenues	\$ (606,603)	\$ 183,932
		\$ 17,191,289 \$ 14,007,234	\$ 19,933,398	\$ 20,284,153	\$ 20,634,909	\$ 20,985,664	\$ 21,336,420	\$ 19,493,715	\$ 16,843,753	\$ 15,550,423	\$ 14,331,842	Ratepayer Revenue Requirement (11) * (12)	(10)	Hold Constant Opt 4 @ WACC		
	110% Target 100% Target	1,729,686,095 4 1,682,984,571	3 1,777,683,551	3 1,827,012,899	9 1,877,711,099	4 1,929,816,135	1,983,367,045	5 2,038,403,951	3 2,094,968,090	3 2,153,101,840	2 2,212,848,756	Projected 1) Electricity Sales (kWh)	(11)	Annual Savings 2.70%		2212848756
	\$ (21,025,149) \$ (19,222,867)	0.00776885	0.00900803	0.00916653	0.00932504	0.00948355	0.00964206	0.00880933	0.00761180	0.00702733	0.00647665	Ratepayer Surcharge (3)+(5)+(7)+(8)+(9) / (10)	(12)	Hold Constant Opt 4 @ WACC		G1
•		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Average kWh/Month per Ratepayer	(13)			
		ዏ ዏ	₩.	❖	↔	❖	\$	❖	❖	÷	₩	Estimated Monthly Bill Impact per Ratepayer	(14)			
		7.77 \$ 6.33 \$	9.01 \$	9.17 \$	9.33 \$	9.48 \$	9.64 \$	8.81 \$	7.61 \$	7.03 \$	6.48 \$					
		93.23 75.96	108.10	110.00	111.90	113.80	115.70	105.71	91.34	84.33	77.72	Estimated Annual Bill Impact per Ratepayer	(15)			

Adjusted 10-Year Total

Modeled Rate of Return Add'l Return via Savings (after ta: Adjusted Rate of Return

\$ 2,207,567

Savings Split Triggered? Savings to Utilities (if applicable)

2,207,567 23,232,715

If Yes, Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap

6.12%

\$ 13,009,487

ROR capped at 2% above Current WACC/ROR	CC/ROR
Is Adjusted ROR > 2% over WACC	No
If "Yes", Adjusted ROR capped at:	8.12%
Adjusted Util. Return via Svgs. \$	ì
Check	6.12%

Adjusted Rate of Return	Savings to Utilities (if applicable) \$ Savings to Ratepayers	Application of ROR Cap	Adj. Savings to Utils (if applic.)	ROR Cap Triggered?	Total Savings (from above)	NON cap Adjusted Savings to Offittes (II applied)
	\$ \$		\$		ş	CIII CIE
7.37%	2,207,567 23,232,715			No	25,440,282	s (11 applic.)

23,232,715	\$ Savings to Ratepayers
2,207,567	\$ Savings to Utilities (if applicable)
	Application of NON Cap

Utility Washington Gas Light

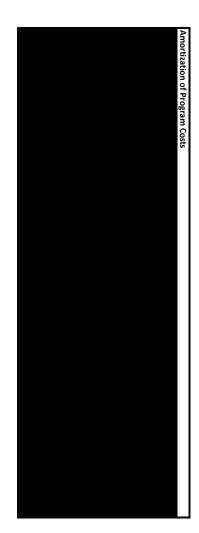
Data Source PSC Case Date PSC Maillog PSC Item 11/18/2019 227417 9494 171

Tax Rate - State and Federal

No Dynamic Pricing program data in Filing Pay off Unamortized Debt in 10 Years and Continue Program

Monthly therm estimate based on total Res and C&I accounts (492,943) Wholesale Revenues assumed to remain consistent

Performance Incentive Incorporated



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onger Term Repayment
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<u>Inputs</u> Residential

9943800

4150254 \$ 26,113,516

376,656,000

(2) (3) (4) (5) (6) (7) (8)	ve 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap
C 2 (3) (4) (5) (6) (7) (8) (8) (1) (8) (1)	100% Target \$ (14,960,035)
Ca	110% Target \$ (16,362,014) \$ (14,663,668.32)
(2) (3) (4) (5) (6) (7) (8) (8) (10) (9,943,800 286,466,138 0.02640022 64
Ca	13,252,439 294,415,352 0.03518446 64
Ca	16,130,047 302,585,151 0.04282435 64
Ca Ca Ca Ca Ca Ca Ca Ca	16,545,302 310,981,656 0.04392682 64
Ca Ca Ca Ca Ca Ca Ca Ca	16,960,557 319,611,157 0.04502930 64
(2) (3) (4) (5) (6) (7) (8)	17,375,812 328,480,120 0.04613178 64
Ca Ca Ca Ca Ca Ca Ca Ca	17,791,068 337,595,191 0.04723426 64
(2) (3) (4) (5) (6) (7) (8) (8) (9) (10) (1	15,927,038 346,963,197 0.04228537 64
(2) (3) (4) (5) (6) (7) (8)	7,402,500 356,591,158 0.01965321 64
(2) (3) (4) (5) (6) (7) Unamortized Balance Return to Utility WACC / (Prior UB)+(2)- Utility (4) Rate of Wholesale Program Cost Amortization (3) *(6)*(.7248) Return Revenue \$ 9,943,800 \$ 4,150,254 \$ 26,113,516 \$ 1,820,785 9.62%	6,606,651 366,486,288 0.01754028 64
(2) (3) (4) (5) (6) (7) (8) Unamortized Balance Return to Utility WACC / (Prior UB)+(2)- Utility (4) Rate of Wholesale Program Cost Amortization (3) *(6)*(.7248) Return Revenue True Up	5,971,039 376,656,000 0.01585276 64
(2) (3) (4) (5) (6) (7) (8) Unamortized Balance Return to Utility WACC / (Prior UB)+(2)- Utility (4) Rate of Wholesale	(10) * (11) Sales (Therms) (10) per Ratepayer
(2) (3) (4) (5) (6) (7) Unamortized Balance Return to Utility WACC /	Requirement Projected Gas (3)+(5)+(7)+(8) / Therm/Month
(2) (3) (4) (5) (6) (7)	
(2) (3) (4) (5) (6) (7)	Ratepayer Ratepayer
	(9) (10) (11) (12)
	2.70%
	Hold Constant Annual Savings Hold Constant

Adjusted Rate of Return

10.59% Savings to Ratepayers

ROR capped at 2% above Current WACC/ROR
Is Adjusted ROR > 2% over WACC
If "Yes", Adjusted ROR capped at
Adjusted Util. Return via Svgs.
\$ 9.62%

ROR Cap Adjusted Savings to Utilities (if applic.) Total Savings (from above) \$ 19,795,952 ROR Cap Triggered? No Adj. Savings to Utils (if applic.) \$ -

Application of ROR Cap		
Savings to Utilities (if applicable)	❖	1,716,969
Savings to Ratepayers	\$	18,078,983

Performance-Based Option 5b Commercial Sector Analysis

All EmPower Utilities - Cl Only

PSC Item	PSC Maillog	Utility	Date
171	227417	WG&L	11/18/2019
174	227502	PEPCO	11/15/2019
175	227501	DP&L	11/15/2019
177	227606	SMECO	11/22/2019
179	227637	Potomac Ed	11/25/2019
181	227547	BGE	11/18/2019

	181	179	177	175	174	171	PSC Item			טנווונץ רוומווכ
	227547	227637	227606	227501	227502	227417	PSC Maillog			Othity Financial Data - PSC Filings - Case 9494
	BGE	Potomac Ed	SMECO	DP&L	PEPCO	WG&L	Utility			igs - case 5454
	11/18/2019	11/25/2019	11/22/2019	11/15/2019	11/15/2019	11/18/2019	Date			
1										
Overall	BGE	Potomac Ed	SMECO	DPL	PEPCO	WG&L	Utility			
.9	9.	9.	6	œ	9	. 9	WAC	?		

		Note: ROR capped at 2% above Current WACC/ROR	Note: ROR	10.50%	9.25%	9.19%	9.25%	Overall
			No	10.93%	9.51%	8.51%	9.51%	BGE
formula	Yes	Savings Split Triggered by this Scenario?	No	10.11%	9.09%	8.09%	9.09%	Potomac Ed
fixed	110%	Savings Split Triggered for Exceeding Goal by:	No	7.45%	6.12%	5.12%	6.12%	SMECO
		(Note: do not enter zero)	No	9.97%	8.57%	7.57%	8.57%	DPL
input	2.70%	Scenario Percentage Utility Sales Reduction	No	10.65%	9.29%	8.29%	9.29%	PEPCO
fixed	2.00%	EmPOWER Goal for Annual Utility Sales Reduction	No	10.42%	9.62%	8.62%	9.62%	WG&L
		Assumptions	Triggered?	Savings (if applic.)	reduction)	reduction)	WACC/ROR	Utility
			ROR Cap	After Split of	(>=1.8%	(<1.8%	Current	
				Adjusted ROR	>=90% of Goal	<90% of Goal		
					WACC/ROR at	WACC/ROR at		
					Baseline	Baseline		
			ncentive Model	Performance-Based Incentive Model				

Note Regarding Amortization of Program Costs

Amortization (Column 3) is increased during 2021-2024 timeframe to new baseline that is approx. 50% above annual Program Costs (Column 2) to achieve accelerated paydown of Unamortized Balance (Column 4)

City				_ (
China Chin	2020 2021 2022 2023 2024 2026 2027 2028 2029 2030	Year		(1)
Box Box	\$ 164,207,683 \$ 164,207,683	Program Cost		(2)
Box Box	\$119,609,850 \$126,998,160 \$130,697,976 \$229,537,514 \$229,537,514 \$229,537,514 \$229,537,514 \$229,537,514 \$229,537,514 \$20,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,5237,514 \$200,502,502,502,502 \$200,502,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,502,502 \$200,502,5	Amortization		(3)
Costs Current Federal Tax Wholesale Federal Tax Wholesale Costs Current Federal Tax Wholesale Federal Tax Federal Tax Wholesale Federal Tax Federal Tax Wholesale Federal Tax Wholesale Federal Tax Federal Tax Federal Tax Wholesale Federal Tax Federal Tax Federal Tax Wholesale Federal Tax Fe	\$ 343,251,333 \$ 403,270,562 \$ 362,943,506 \$ 297,613,675 \$ 232,283,844 \$ 166,954,013 \$ 101,624,182 \$ 36,294,351 \$ 36,294,351 \$ 36,294,351 \$ 101,624,182 \$ 101,624 \$ 101,624 \$ 101,624 \$ 101,624 \$ 101,624 \$ 101,624 \$ 101,624	(Prior)+(2)-(3)	Unamortized Balance	(4)
Costs Current Federal Tax Wholesale Federal Tax Wholesale Costs Current Federal Tax Wholesale Federal Tax Federal Tax Wholesale Federal Tax Federal Tax Wholesale Federal Tax Wholesale Federal Tax Federal Tax Federal Tax Wholesale Federal Tax Federal Tax Federal Tax Wholesale Federal Tax Fe	\$ 22,888,720 \$ 25,305,659 \$ 26,889,306 \$ 24,182,376 \$ 19,829,548 \$ 15,476,720 \$ 11,123,893 \$ 6,771,065 \$ 2,418,238 \$ 2,418,238 \$ 2,418,238 \$ 2,418,238 \$ 131,976,804 \$ 18,653,964 \$ 18,653,964			(5)
Bactes Federal Tax Wholesale Federal Tax Federal T	9.25% 9.19% 9.19% 9.19% 9.19% 9.19% 9.19% 9.19% 9.19% 9.19% 9.19% 9.19% 9.19%			(6)
Excess Ratepayer Hold Constant Revenues 1,13		Year Expense)	Net Operating Costs (Current	(7)
Excess Ratepayer Hold Constant Revenues 1,13	otal Savings (from avings to Ratepay avings to Utilities avings to Utilities avings to Utilities to Utilities to Utilities to Utilities avings to Ratepay	Credit	Federal Tax	(8)
Communication Communicatio	(1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494) (1.592,494)	Revenue	Wholesale	
Clay		True Up		Excess Ratepayer Revenues (10)
tepa	\$ 148,947,172 \$ 163,210,635 \$ 230,618,002 \$ 251,267,949 \$ 242,562,94 \$ 238,209,466 \$ 238,826,639 \$ 202,402,921 \$ 166,108,570 \$ 2,124,098,769	Requirement	Ratepayer Revenue	Hold Constant Opt 4 @ WACC (11)
tepa	\$ 3.54 \$ 4.33 \$ 6.12 \$ 6.66 \$ 6.62 \$ 5.44 110% Target ive 50% of Savings	Ratepayer	Estimated Monthly Bill Impact per	(12)
tepa	42.42 47.40 5 11.94 6 73.39 6 78.58 77.19 6 74.42 6 64.41 6 52.86 6 52.86 6 52.86 6 52.86	Ratepayer	Estimated Annual Bill Impact per	(13)
tepa	\$ 145,274,; \$ 155,274,; \$ 214,014, \$ 274,470,; \$ 209,011,; \$ 209,021,; \$ 209,276,9 \$ 191,856,; \$ 162,042,0 \$ 1,853,072,6 (0 Target (see box ab	Requiremen	Ratepayer Revenue	Savings Applie
tepa	500 \$ 4.99 5060 \$ 4.12 5061 \$ 4.12 507 508 508 508 508 508 508 508 508 508 508	Ratep	Estimated Monthly Bill Impact per	d to Ratepayers
		Ratepayer	Estimated Annual Bill Impact per	91.33%

Utility **Baltimore Gas and Electric**

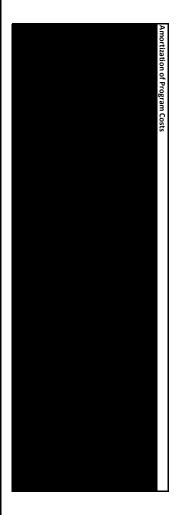
Data Source PSC Case Date PSC Maillog PSC Item 11/18/2019 227547 9494 181

Tax Rate - State and Federal 27.52%

Pay off Unamortized Debt in 10 Years

Wholesale Revenues assumed to remain consistent Net Operating Costs only from Peak Rewards Riders 15 and 56

Performance Incentive Incorporated



Year	(1)	Inputs Residential Commercial Adjustment Peak Rew 15 Peak Rew 56
Program Cost	(2)	\$ 55,158,263
Amortization	(3)	\$ 52,231,207 \$ 706,586
Unamortized Balance (Prio UB)+(2)-(3)	(4)	\$ 128,973,493
Unamortized Net Operating Balance (Prior Return to Utility Utility WACC / Costs (Current Wholesake Program Cost Amortization UB)+(2)-(3) (4) * (6) * (.7248) Rate of Return Year Expense) Revenue	(5)	\$ 55,158,263 \$ 52,231,207 \$ 128,973,493 \$ 4,906,441 \$ 706,586
Utility WACC /	(6)	
Net Operating Costs (Current Year Expense)	(7)	\$ 2,151,270
Wholesale Revenue	(8)	\$ (439,391) \$
True ∪p	(9)	\$ (2,677,807) Excess Ratepayer Revenues
Ratepayer Revenue Requirement (11) * (12)	(10)	0 -
Ratepayer Estimated e Projected Surcharge Average Monthly Bi Electricity Sales (3)+(5)+(7)+(8)+(9 kWh/Month Impact pe) (kWh)) / (11) per Ratepayer Ratepayer	(11)	16,399,051,000 incl. above incl. above 4 @ WACC 2.70%
Ratepayer Surcharge (3)+(5)+(7)+(8)+(9) / (11)	(12)	Hold Constant
Estimated Average Monthly Bi [9 kWh/Month Impact pe per Ratepayer Ratepayer	(13)	
Estimated Monthly Bill Impact per Ratepayer	(14)	

(15)
Estimated
Annual Bill
Impact per
Ratepayer

		2030	2029	2028	2027	2026	2025	2024	2023	2022	2021	2020
		\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263	\$ 55,158,263
	10-Year Total	\$ 55,158,263 \$	\$ 66,088,807 \$	\$ 74,833,243 \$	\$ 74,833,243 \$	\$ 74,833,243 \$	\$ 74,833,243 \$	\$ 74,833,243 \$	\$ 67,303,312 \$	\$ 61,725,467 \$	\$ 56,114,061 \$	\$ 52,937,793 \$
	❖	· \$	· \$	10,930,544 \$	30,605,524 \$	50,280,504 \$	69,955,483 \$	89,630,463 \$	109,305,443 \$	121,450,492 \$	128,017,695 \$	128,973,493 \$
	42,058,514		,	753,426	2,109,592	3,465,759	4,821,925	6,178,092	7,534,258	8,371,398	8,824,065	8,889,947
		9.51%	9.51%	9.51%	9.51%	9.51%	9.51%	9.51%	9.51%	9.51%	9.51%	9.51%
		2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$	2,151,270 \$
		(439,391)	(439,	(439,391)	(439,	(439,	(439,	(439,	(439,	(439,	(439,	(439,
		391)	391)	391)	391)	391)	391)	391)	391)	391)	391)	391)
	↔	391) \$	391) \$	391) \$	391) \$	391) \$	391) \$	391) \$	391) \$	391) \$	391) \$	391) \$
	\$ (100,099,909)	391) \$ (13,617,493) \$	\$	391) \$ (15,201,056) \$	\$	\$	\$	\$	\$	\$	\$	391) \$ (2,677,807) \$
	\$ (100,099,909)	\$ (\$	\$	\$ (13,714,362) \$	\$	\$	\$	\$	\$	\$	₩
100% Target	\$ (100,099,909) 110% Target	\$ (13,617,493) \$	\$ (14,803,886) \$ 67,800,686	\$ (15,201,056) \$	\$ (13,714,362) \$ 78,654,714	\$ (12,117,710) \$ 80,010,880	\$ (10,407,186) \$	\$ (8,578,745) \$	\$ (6,034,598) \$ 76,549,449	\$ (3,825,324) \$	\$ (1,799,550) \$	\$ (2,677,807) \$
100% Target \$ (75.635.296)	9)	\$ (13,617,493) \$ 56,870,142 12,472,316,389	\$ (14,803,886) \$ 67,800,686	\$ (15,201,056) \$ 77,298,547 13,174,114,650	\$ (13,714,362) \$ 78,654,714	\$ (12,117,710) \$ 80,010,880 13,915,402,032	\$ (10,407,186) \$ 81,367,047	\$ (8,578,745) \$ 82,723,213 14,698,400,526	\$ (6,034,598) \$ 76,549,449 15,106,269,811 (\$ (3,825,324) \$ 71,808,743	\$ (1,799,550) \$ 66,650,005	\$ (2,677,807) \$ 60,861,812
	9) 110% Target \$	\$ (13,617,493) \$ 56,870,142 12,472,316,389 0.00346789	\$ (14,803,886) \$ 67,800,686 12,818,413,555 0.00413443	\$ (15,201,056) \$ 77,298,547 13,174,114,650	\$ (13,714,362) \$ 78,654,714 13,539,686,177 0.00479630	\$ (12,117,710) \$ 80,010,880 13,915,402,032 0.00487899	\$ (10,407,186) \$ 81,367,047 14,301,543,712 0.00496169	\$ (8,578,745) \$ 82,723,213 14,698,400,526 0.00504439	\$ (6,034,598) \$ 76,549,449 15,106,269,811 0.00466792	\$ (3,825,324) \$ 71,808,743 15,525,457,154 0.00437884	\$ (1,799,550) \$ 66,650,005 15,956,276,623 0.00406426	\$ (2,677,807) \$ 60,861,812 16,399,051,000
	9) 110% Target \$	\$ (13,617,493) \$ 56,870,142 12,472,316,389 0.00346789	\$ (14,803,886) \$ 67,800,686 12,818,413,555 0.00413443	\$ (15,201,056) \$ 77,298,547 13,174,114,650 0.00471360	\$ (13,714,362) \$ 78,654,714 13,539,686,177 0.00479630	\$ (12,117,710) \$ 80,010,880 13,915,402,032 0.00487899	\$ (10,407,186) \$ 81,367,047 14,301,543,712 0.00496169	\$ (8,578,745) \$ 82,723,213 14,698,400,526 0.00504439	\$ (6,034,598) \$ 76,549,449 15,106,269,811 0.00466792	\$ (3,825,324) \$ 71,808,743 15,525,457,154 0.00437884	\$ (1,799,550) \$ 66,650,005 15,956,276,623 0.00406426	\$ (2,677,807) \$ 60,861,812 16,399,051,000 0.00371130
	9) 110% Target \$	\$ (13,617,493) \$ 56,870,142 12,472,316,389 0.00346789 1000 \$	\$ (14,803,886) \$ 67,800,686 12,818,413,555 0.00413443 1000 \$	\$ (15,201,056) \$ 77,298,547 13,174,114,650 0.00471360	\$ (13,714,362) \$ 78,654,714 13,539,686,177 0.00479630 1000 \$	\$ (12,117,710) \$ 80,010,880 13,915,402,032 0.00487899 1000 \$	\$ (10,407,186) \$ 81,367,047 14,301,543,712 0.00496169 1000 \$	\$ (8,578,745) \$ 82,723,213 14,698,400,526 0.00504439 1000 \$	\$ (6,034,598) \$ 76,549,449 15,106,269,811 0.00466792 1000 \$	\$ (3,825,324) \$ 71,808,743 15,525,457,154 0.00437884 1000 \$	\$ (1,799,550) \$ 66,650,005 15,956,276,623 0.00406426 1000 \$	\$ (2,677,807) \$ 60,861,812 16,399,051,000 0.00371130 1000 \$

Adjusted 10-Year Total s 48,354,485

Add'l Return via Savings (after tax)
Adjusted Rate of Return

9.51% 6,295,970 10.93%

Savings Split Triggered? Savings to Utilities (if applicable) Total Savings (from above)

Yes 8,686,493 91,413,416 100,099,909

If Yes, Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap

avings to Ratepayers

)-Yr Totals \$ 610,176,148 \$

odeled Rate of Return

ROR capped at 2% above Current WACC/ROR	/ACC/ROR
Is Adjusted ROR > 2% over WACC	No
If "Yes", Adjusted ROR capped at:	11.51%
Adjusted Util. Return via Svgs.	\$ >
Check	9.51%

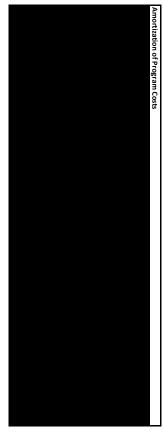
ROR Cap Adjusted Savings to Utilities (if ap	ies (if apı	olic.)
Total Savings (from above)	\$	100,099,909
ROR Cap Triggered?		No
Adj. Savings to Utils (if applic.)	\$	

Application of ROR Cap	
Savings to Utilities (if applicable)	\$ 8,686,493
Savings to Ratepayers	\$ 91,413,416

Utility Delmarva Power and Light

Data Source
PSC Case
PSC Item
PSC Maillog
Date 9494 175 227501 11/15/2019

Notes
Tax Rate - State and Federal
27.52%
Netted out CIF merger contributions for 2018-2020 for projection purposes
Federal Tax Credit ends in 2022



Pay off Unamortized Debt in 10 Years and Continue Program	
Net Operating Costs only from Dynamic Pricing and Direct Load Control	
Wholesale Revenues assumed to remain consistent	
Performance Incentive Incorporated	

	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u> </u>	Inputs Residential C&I DP - Resid DL - Resid DL - C&I
	2020 2021 2021 2022 2023 2024 2025 2026 2026 2027 2027 2028 2029	(1) Year	s: Perror ntial ntial sid sid
	\$ 18,323,362 \$ 18,323,362	(2)	Option 5: Performance-Based Incentive with Longer Term Repayment Inputs Residential C&I \$ 18,201,871 \$ 8,720,286 \$ 23,361,4 DP - Resid DL - Resid DL - C&I \$ 121,491 \$ 126,842 \$ 730.5
10-Year Totals 10-Yr Totals Modeled Ra Add'l Return Adjusted Ra	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		1 \$
10-Year Total 10-Yr Totals \$ 195,98 Modeled Rate of Return Add'l Return via Savings (after tax) Adjusted Rate of Return	8,847,128 \$ 9,377,956 \$ 10,315,751 \$ 22,427,840 \$ 24,972,617 \$ 24,972,617 \$ 24,972,617 \$ 24,972,617 \$ 24,972,617 \$ 24,972,617 \$ 24,972,617 \$ 24,972,617 \$ 24,972,617 \$ 24,972,617 \$	(3) Amortization B	######################################
195,984,966 urn ngs (after tax)	24,091,767 33,037,173 41,044,784 36,940,306 30,291,051 23,641,796 16,992,541 10,343,286 3,694,031	(4) Unamortized Balance (P	m Repayment 23,361,655
\$ \$	767 5 1173 5 1173 5 306 5 306 5 306 7 796 5 796 5 286 5 286 5 286 5	ni or	nent 361,655 730,112
12,170,666 12,170,666 8.57% 1,991,035 9.97%	1,496,099 2,051,608 2,548,881 2,249,399 1,881,074 1,468,156 1,055,237 642,318 229,399	(5) Return to Utility (4) * (6) * (7248)	
<u>% 01 % 01</u> 01		(6) Utility WACC /	
	***		₩.
	435,491 435,491 435,491 435,491 435,491 435,491 435,491 435,491 435,491 435,491 435,491 435,491	(7) Net Operating Costs (Current Year Expense)	435,491
Total Savings (from above) Savings Split Triggered? Savings to Utilities (if applicable) Savings to Ratepayers	\$ (1,119,351) \$ (1,119,351) \$ (1,119,351)	(8) Federal Tax	\$ (1,097,687) \$ \$ (21,664) \$
from aboriggered? ties (if ap	***	_R ≨	4) \$
ye) \$	(339,994) \$ (339,9	(9) Wholesale	(339,994) \$ - \$ Ex
(31,709,748) 31,709,748 Yes 2,747,013 28,962,735	(173,612) (280,954) (630,770) (1,956,417) (2,794,744) (3,394,100) (3,956,402) (4,482,912) (4,482,912) (4,288,221) (4,410,375)	(10)	\$ (137,938) \$ (35,674) \$ (35,674) Excess Ratepayer Revenues
If Yes, Utilities	\$ 9,14 \$ 10,40 \$ 21,184 \$ 26,53 \$ 26,53 \$ 25,71 \$ 25,72 \$ 25,72 \$ 25,72 \$ 25,72	(11) Ratepayer Revenue Requirement (12) * (13)	Hold Constant Opt 4 @ WACC
receive 5	761 710 778 330 188 2270 351 351 351 351 513 890		
110% Target 100% Target 50% of Savings ir	1,929,641,791 1,877,541,463 1,876,847,843 1,777,522,951 1,729,529,832 1,682,832,526 1,637,396,048 1,593,186,355 1,593,186,355 1,593,186,355 1,593,120,323	(12) Projected Electricity Sales	1929641791 incl. above Annual Savings 2.70%
110% Target \$ (26.215,722) 100% Target \$ (23,971,846) If Yes, Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap	0.00473962 0.00539256 0.00539256 0.00613626 0.01286111 0.01396590 0.01375191 0.01353793 0.01353793 0.0135294 0.013410995 0.01145958	(13) Ratepayer Surcharge (3)+(5)+(7)+(8)+	Hold Constant Opt 4 @ WACC
Target (see box a	1000 1000 1000 1000 1000 1000 1000 100	(14) Average kWh/Month	
ibove) sul		—	
oject to RC	4.74 5.39 6.14 12.86 13.97 13.75 13.54 13.32 13.31 13.41 11.46 9.55	(15) Estimated Monthly Bill Impact per Ratenaver	
<u>)R Сар</u>	\$ 56.88 \$ 64.71 \$ 73.64 \$ 1167.59 \$ 1165.02 \$ 162.46 \$ 159.89 \$ 157.32 \$ 137.51 \$ 114.54	(16) Estimated Annual Bill Impact per	

Adjusted 10-Year Total

s

14,161,701

ls Adjusted ROR > 2% over WACC		No
f "Yes", Adjusted ROR capped at:		10.57%
Adjusted Util. Return via Svgs.	↔	
Check		8.57%

\$ 28,962,735	Savings to Ratepayers
ile) \$ 2,747,013	Savings to Utilities (if applicable)
	Application of ROR Cap
	Adj. Savings to Utils (if applic.)
No	ROR Cap Triggered?
\$ 31,709,748	Total Savings (from above)

Savings to Utilities (if applicable)	s	2,747,013
Savings to Ratepayers	٠,	28,962,735

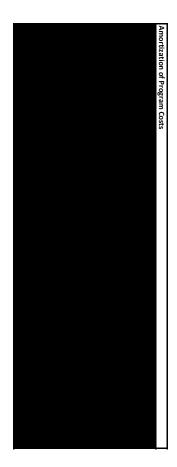
Utility PEPCO

Data Source
PSC Case
PSC Item
PSC Maillog Date 11/15/2019 9494 174 227502

Notes Tax Rate - State and Federal 27.52%

Residential program costs reduced by WGL Billing Coord. amt. (\$1,682,363) Federal Tax Credit ends in 2022

Pay off Unamortized Debt in 10 Years and Continue Program
Net Operating Costs only from Dynamic Pricing and Direct Load Control
Wholesale Revenues assumed to remain consistent



Performance Incentive Incorporated

				2030	2029	2028	2027	2026	2025	2024	2023	2022	2021	2020	Year				(1)	in .		DL - C&I	DL - Resid	DP - Resid	C&I	Residential	Inputs
				30 \$	29 \$	28 \$	27 \$	26 \$	25 \$	24 \$	23 \$	22 \$	21 \$	20 \$					5			÷	<u>a</u>	ä	\$	tial	
				53,237,664	53,237,664	53,237,664	53,237,664	53,237,664	53,237,664	53,237,664	53,237,664	53,237,664	53,237,664	53,237,664	Program Cost			,	(2)			441,832 \$			52,795,832		
Modeled R Add'l Retur Adjusted R	10-Yr Totals		10-Year Total	\$ 53,237,664	\$ 64,136,855	\$ 72,856,208	\$ 72,856,208	\$ 72,856,208	\$ 72,856,208	\$ 72,856,208	\$ 65,347,877	\$ 45,723,126	\$ 41,566,479	\$ 39,213,659	Amortization				(3)						\$ 38,988,961 \$		
Modeled Rate of Return Add'l Return via Savings (after tax) Adjusted Rate of Return	s \$		tal	,664 \$,855 \$,208 \$,208 \$,208 \$,208 \$,208 \$,877 \$,126 \$,479 \$,659 \$		Balance	⊆					224,698 \$,961 \$		
n s (after tax) n	594,363,029					10,899,191	30,517,736	50,136,280	69,754,825	89,373,369	108,991,913	121,102,126	113,587,588	101,916,403	UB)+(2)-(3)	ce (Prior	Unamortized		(4)			1,872,126			100,044,277		
₩	9 \$		⋄	❖	\$	1 \$	\$	\$	5	\$	3	6 \$	∞ ⊹	3 \$	(4) *							6			7		
9.29% 5,885,558 10.65%	39,999,253		39,999,253			733,490	2,053,773	3,374,055	4,694,338	6,014,620	7,334,903	8,149,892	7,644,181	6,858,737	(4) * (6) * (.7248)	Return to Utility		,	(5)								
				9.29%	9.29%	9.29%	9.29%	9.29%	9.29%	9.29%	9.29%	9.29%	9.29%	9.29%	Rate of Return	Utility WACC /		,	(6)								
				₩	⊹	⊹	↔	↔	⊹∽	⊹	\$	⋄	\$	❖			Net					÷					
10 10 10		ī		906,620	906,620	906,620	906,620	906,620	906,620	906,620	906,620	906,620	906,620	906,620	Year Expense)	Costs (Current	Net Operating		(7)			906,620 \$					
Savings Split Triggered? Savings to Utilities (if applicable) Savings to Ratepayers	Total Savings (from above)											\$ (4,138,183)	\$ (4,138,183)	\$ (4,138,183)	Credit	Federal Tax		,	(8)			\$ (71,751)			\$ (4,066,432) \$		
gered? es (if appli ayers	om above)			\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	\$ (81	Revenue	Wholesale			(9)								
cable) \$	\$		\$	(813,109) \$	(813,109) \$	(813,109) \$	(813,109) \$	(813,109) \$	(813,109) \$	(813,109) \$	(813,109) \$	(813,109) \$	(813,109) \$	(813,109) \$	ue	äle					E	ν.			(813,109) \$		
Yes 8,120,252 85,532,248	93,652,499		(93,652,499)	(12,770,091)	(14,024,327)	(14,490,086)	(13,077,729)	(11,559,295)	(9,931,000)	(8,188,934)	(5,737,150)	(2,654,406)	(1,219,482)	(3,539,457)	True Up			,	(10)	Revenues	Excess Ratepayer	(40,359)			(3,499,098)		
lf Yes, Utilities re				\$ 53,331,175	\$ 64,230,366	\$ 73,683,210	\$ 75,003,492	\$ 76,323,775	\$ 77,644,057	\$ 78,964,340	\$ 72,776,291	\$ 49,828,347	\$ 45,165,988	\$ 38,488,267	(12) * (13)	Requirement	Revenue	Ratepaver	(11)	Opt 4 @ WACC	Hold Constant						
ceive 50% of Saving		100% Target	110% Target	6,488,724,719	6,668,781,828) 6,853,835,383	7,044,024,032	5 7,239,490,270	7,440,380,544	7,646,845,369	1 7,859,039,434	7 8,077,121,720	8,301,255,622	7 8,531,609,067	(kWh)	Electricity Sales	Projected	,	(12)	2.70%	Annual Savings	incl. above			8531609067		
lf Yes, Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap		\$ (70,780,886)	\$ (77,411,996)	9 0.00625101	8 0.0075285	3 0.00863650	2 0.00879125	0.00894600	4 0.00910075	9 0.00925550	4 0.00853020	0.00584044	2 0.00529396	7 0.00451126	9)+(10) / (11)	(3)	Surcharge	Ratepaver	(13)	Opt 4 @ WACC	Hold Constant				37		
6 Target (see bo	J	5)	<u>~</u>	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	per Ratepayer	፷	Average		(14)	. 7							
ox above)				₩	\$	\$	\$	\$	\$	\$	\$	ψ.	\$	❖				Es									
subject to RC				6.25 \$	7.53 \$	8.64 \$	8.79 \$	8.95 \$	9.10 \$	9.26 \$	8.53 \$	5.84 \$	5.29 \$	4.51 \$	Ratepayer	Impact per	Monthly Bill	Estimated	(15)								
<u>)R Cap</u>				75.01	90.34	103.64	105.49	107.35	\$ 109.21	111.07	102.36	70.09	63.53	54.14	Ratepayer	Impact per	Annual Bill	Estimated	(16)								

Adjusted 10-Year Total

45,884,811

ROR capped at 2% above Current WACC/ROF	ACC/ROR	
Is Adjusted ROR > 2% over WACC		No
If "Yes", Adjusted ROR capped at:		11.29%
Adjusted Util. Return via Svgs.	↔	,
Check		9.29%

ROR Cap Adjusted Savings to Utilities (if ap	ilities	(if applic.)
Total Savings (from above)	\$	93,652,499
ROR Cap Triggered?		No
Adj. Savings to Utils (if applic.)	↔	,

Utility Potomac Edison

Data Source PSC Case Date **PSC Maillog** PSC Item 11/25/2019 227637 9494 179

PEPCO amortizes over 6 years per filings, not 5 years Pay off Unamortized Debt in 10 Years and Continue Program Tax Rate - State and Federal 27.52%

Wholesale Revenues assumed to remain consistent No Dynamic Pricing program data in Filing

Performance Incentive Incorporated

Comm'l	Residential	Inputs
ş		
25,		

\$ 25,551,316 \$ 11,509,452 \$ 62,125,839

Unamortized (4)

(5)

(6)

Excess Ratepayer Opt 4 @ WACC Hold Constant Annual Savings 2.70% 3614682090 Opt 4 @ WACC **Hold Constant**

(12)

Estimated (13)

Estimated (14)

2030	2029	2028	2027	2026	2025	2024	2023	2022	2021	2020	Year
\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	\$ 25,551,316	Program Cost Amortization
\$ 25,551,316	\$ 33,436,075	\$ 39,743,882	\$ 39,743,882	\$ 39,743,882	\$ 39,743,882	\$ 39,743,882	\$ 34,312,159	\$ 13,420,021	\$ 12,200,019	\$ 11,509,452	Amortization
⊹	₹	\$ 7,884,759	\$ 22,077,325	\$ 36,269,890	\$ 50,462,456	\$ 64,655,022	\$ 78,847,588	\$ 87,608,431	\$ 75,477,136	\$ 62,125,839	Unamortized Ret Balance Ret (Prior UB)+(2)- Utility (3) * (6) *
⊹	\$	\$ 519,606	\$ 1,454,896	\$ 2,390,186	\$ 3,325,476	\$ 4,260,766	\$ 5,196,056	\$ 5,773,396	\$ 4,973,943	\$ 4,094,093	urn to
9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	9.09%	
											Wholesale Revenue
\$	↔	↔	↔	↔	↔	↔	↔	↔	↔		
(6,118,234) \$	(7,300,573) \$	(7,917,969) \$	(7,183,485) \$	(6,381,237) \$	(5,508,751) \$	(4,563,467) \$	(3,114,539) \$	(1,022,452) \$	(463,697) \$	❖	True Up
25,551,316	33,436,075	40,263,487	41,198,777	42,134,068	43,069,358	44,004,648	39,508,215	19,193,417	17,173,962	15,603,545	Ratepayer Revenue Requirement (10) * (11)
2,749,150,464	2,825,437,271	2,903,840,977	2,984,420,326	3,067,235,689	3,152,349,115	3,239,824,374	3,329,727,003	3,422,124,360	3,517,085,674	3,614,682,090	Projected Electricity Sales (kWh)
0.00706876	0.00925007	0.01113887	0.01139762	0.01165637	0.01191512	0.01217386	0.01092993	0.00530985	0.00475117	0.00431671	Ratepayer Surcharge lected Electricity (3)+(5)+(7)+(8) / Sales (kWh) (10)
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	Average kWh/Month per Ratepayer
s	s	\$	s	s	\$	s	s	s	s	φ.	
7.07 \$	9.25 \$	11.14 \$	11.40 \$	11.66 \$	11.92 \$	12.17 \$	10.93 \$	5.31 \$	4.75 \$	4.32 \$	Estimated Monthly Bill Impact per Ratepayer
\$ 84.83	\$ 111.00	\$ 133.67	\$ 136.77	\$ 139.88	\$ 142.98	\$ 146.09	\$ 131.16	\$ 63.72	\$ 57.01	\$ 51.80	Estimated Annual Bill Impact per Ratepayer

									, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10 V T : 1		
			\$ (37,465,815)	00% Target	12							
			\$ (40,976,338)	10% Target	1	(49,574,404)	\$		\$ 27,894,324	10	10-Year Total	
7.07 \$	₩	1000	0.00706876	2,749,150,464	25,551,316	(6,118,234) \$	₩.	9.09%	,		\$ 25,551,316	\$ 25,551,316
9.25 \$	❖	1000	0.00925007	2,825,437,271	33,436,075	(7,300,573) \$	⋄	9.09%	,	٠.	\$ 33,436,075	\$ 25,551,316
11.14 \$	\$	1000	0.01113887	2,903,840,977	40,263,487	(7,917,969) \$	⋄	9.09%	\$ 519,606	\$ 7,884,759 \$	\$ 39,743,882	\$ 25,551,316
11.40 \$	\$	1000	0.01139762	2,984,420,326	41,198,777	(7,183,485) \$	₩	9.09%	\$ 1,454,896	\$ 22,077,325 \$	\$ 39,743,882	\$ 25,551,316
11.66 \$	❖	1000	0.01165637	3,067,235,689	42,134,068	(6,381,237) \$	⋄	9.09%	\$ 2,390,186	\$ 36,269,890 \$	\$ 39,743,882	\$ 25,551,316
11.92 \$	\$	1000	0.01191512	3,152,349,115	43,069,358	(5,508,751) \$	⋄	9.09%	\$ 3,325,476	\$ 50,462,456 \$	\$ 39,743,882	\$ 25,551,316
12.17 \$	❖	1000	0.01217386	3,239,824,374	44,004,648	(4,563,467) \$	⋄	9.09%	\$ 4,260,766	\$ 64,655,022 \$	\$ 39,743,882	\$ 25,551,316
10.93 \$	❖	1000	0.01092993	3,329,727,003	39,508,215	(3,114,539) \$	❖	9.09%	5,196,056	\$ 78,847,588 \$	\$ 34,312,159	\$ 25,551,316
5.31 \$	❖	1000	0.00530985	3,422,124,360	19,193,417	(1,022,452) \$	❖	9.09%	5,773,396	\$ 87,608,431 \$	\$ 13,420,021	\$ 25,551,316
4.75 \$	❖	1000	0.00475117	3,517,085,674	17,173,962	(463,697) \$	❖	9.09%	\$ 4,973,943	\$ 75,477,136 \$	\$ 12,200,019	\$ 25,551,316
4.32 \$	❖	1000	0.00431671	3,614,682,090	15,603,545	❖		9.09%	\$ 4,094,093	\$ 62,125,839 \$	\$ 11,509,452	\$ 25,551,316

Adjusted 10-Year Total

Adjusted Rate of Return Add'l Return via Savings (after ta: Modeled Rate of Return

3,115,939 Savings to Utilities (if applicable

9.09%

Savings Split Triggered? Total Savings (from above)

49,574,404 Yes 4,299,033

If Yes, Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap

ROR capped at 2% above Current WACC/ROR
IS Adjusted ROR > 2% over WACC
If "Yes", Adjusted ROR capped at
Adjusted Util. Return via Svgs.
5

9.09%

ROR Cap Adjusted Savings to Utilities (if applic.)

Total Savings (from above) \$ 49,574,404

ROR Cap Triggered? No

Adj. Savings to Utils (if applic.) \$ -

Application of ROR Cap
Savings to Utilities (if applicable)
Savings to Ratepayers 4,299,033 45,275,371

Utility SMECO

Data Source

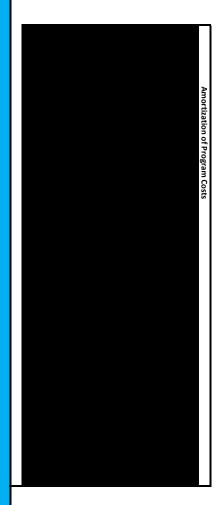
PSC Item PSC Maillog Date PSC Case 11/22/2019 227606 9494 177

Tax Rate - State and Federal 0.00%

Unamortized Balance not available in filings; extrapolated from 4/19 CRWG report Pay off Unamortized Debt in 10 Years and Continue Program

Net Operating Costs only from Cool Sentry programs Wholesale Revenues assumed to remain consistent

Performance Incentive Incorporated



	2029 2030	2028	2026 2027	2025	2024	2023	2022	2021	2020	Year				(1)			Cool Sent - Cl	Cool Sent- Res	Residential Comm'l	Inputs
_	\$ 10,429,718 \$ 10,429,718	\$ 10,429,718	\$ 10,429,718 \$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	\$ 10,429,718	Program Cost				(2)					\$ 10,429,718	
10-Year Total	\$ 12,646,509 \$ 10,429,718	\$ 14,419,942	\$ 14,419,942 \$ 14,419,942	\$ 14,419,942	\$ 14,419,942	\$ 12,892,820	\$ 7,517,932	\$ 6,834,484	\$ 6,447,626	Amortization				(3)					\$ 10,429,718 \$ 6,447,626 \$ 18,123,995	
	⋄ ⋄	\$ 2,216,791	\$ 10,197,240 : \$ 6,207,016 :	\$ 14,187,465	\$ 18,177,689	\$ 22,167,914	\$ 24,631,015	\$ 21,719,229	\$ 18,123,995	(3)	(Prior UB)+(2)- Utility	Balance	Unamortized	(4)					\$ 18,123,995	
\$ 7,313,667		\$ 135,668	\$ 624,071 \$ 379,869	\$ 868,273	\$ 1,112,475	\$ 1,356,676	\$ 1,507,418	\$ 1,329,217	\$ 1,109,188	* (6)		Return to		(5)						
_	6.12% 6.12%	6.12%	6.12% 6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	6.12%	Rate of Return Year Expense)	(4) Utility WACC / Costs (Current			(6)						
	\$ 2,519,155 \$ 2,519,155	\$ 2,519,155	\$ 2,519,155 \$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	\$ 2,519,155	Year Expense)	Costs (Current	Net Operating		(7)			\$ 2,519,155			
										Revenue	Wholesale			(8)						
\$ (18,370,778)	\$ (2,761,292) \$ (2,497,384)	\$ (2,862,417)	\$ (2,278,427) \$ (2,580,519)	\$ (1,955,427)	\$ (1,610,777)	\$ (1,123,326)	\$ (480,789)	\$ (220,420)	\$ 354,391	True Up				(9)	Revenues	Excess Ratepayer	\$ 583,264		\$ (228,873)	
	\$ 12,646,509 \$ 10,429,718	\$ 14,555,610	\$ 15,044,014 \$ 14,799,812	\$ 15,288,215	\$ 15,532,417	\$ 14,249,496	\$ 9,025,350	\$ 8,163,700	\$ 7,911,205	* (12)	Requirement (11)	Ratepayer Revenue		(10)	Opt 4 @ WACC	Hold Constant				
110% Target 100% Target	1,030,650,017 1,002,822,467	1,059,249,761	1,118,852,133 1,088,643,125	1,149,899,417	1,181,808,240	1,214,602,507	1,248,306,791	1,282,946,342	1,318,547,114	(kWh)	Electricity Sales	Projected		(11)	2.70%	Annual Savings			1318547114	
\$ (15,185,666) \$ (13,885,083)	0.00959125	0.01103913	0.01140954 0.01122433	0.01159474	0.01177995	0.01080697	0.00684492	0.00619144	0.00599994	9) / (10)	(3)+(5)+(7)+(8)+(Surcharge	Ratepayer	(12)	Opt 4 @ WACC	Hold Constant				
	1000	1000	1000	1000	1000	1000	1000	1000	1000	per Ratepayer	kWh/Month	Average		(13)						
	\$ 9.59 \$ 7.91	\$ 11.04	\$ 11.41 \$ 11.22	\$ 11.59	\$ 11.78	\$ 10.81	\$ 6.84	\$ 6.19	\$ 6.00	Ratepayer	Impact per	Monthly Bill	Estimated	(14)						
	\$ 115.09 \$ 94.92	₩.	\$ 136.91	∙ •	\$ 141.36	\$ 129.68	\$ 82.14	\$ 74.30	\$ 72.00	Ratepayer	Impact per	Annual Bill	Estimated	(15)						

Adjusted 10-Year Total

Add'l Return via Savings (after ta: odeled Rate of Return

\$

1,592,556

Total Savings (from above) avings Split Triggered? avings to Utilities (if applicable)

18,370,778

\$ 8,906,223

1,592,556 Yes If Yes, Utilities receive 50% of Savings in excess of 110% Target (see box above) subject to ROR Cap

ROR capped at 2% above Current WACC/ROR	CC/ROR
Is Adjusted ROR > 2% over WACC	No
If "Yes", Adjusted ROR capped at:	8.12%
Adjusted Util. Return via Svgs. \$	ì
Check	6.12%

ROR Cap Adjusted Savings to Utilities (if applic.)	ies (if applic.)
Total Savings (from above)	18,370,778
ROR Cap Triggered?	No
Adj. Savings to Utils (if applic.)	1

Application of ROR Cap	
Savings to Utilities (if applicable) \$	1,592,556
Savings to Ratepayers \$	16,778,222

Utility Washington Gas Light

Data Source PSC Case Date PSC Maillog PSC Item 11/18/2019 227417 9494 171

Pay off Unamortized Debt in 10 Years and Continue Program Tax Rate - State and Federal

No Dynamic Pricing program data in Filing

Wholesale Revenues assumed to remain consistent

Monthly therm estimate based on total Res and C&I accounts (492,943)

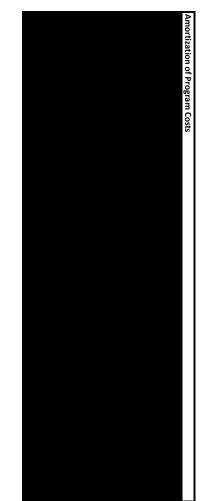
Performance Incentive Incorporated

Commercial

1507360

853927 \$ 6,319,836

334,761,000



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2030	2029	2028	2027	2026	2025	2024	2023	2022	2021	2020	Year	(1)		
\$ 1,507,360 \$	\$ 1,507,360	\$ 1,507,360	\$ 1,507,360	\$ 1,507,360	\$ 1,507,360	\$ 1,507,360	\$ 1,507,360	\$ 1,507,360	\$ 1,507,360	\$ 1,507,360	Program Cost Amortization	(2)		
\$ 1,507,360	\$ 2,176,394	\$ 2,711,622	\$ 2,711,622	\$ 2,711,622	\$ 2,711,622	\$ 2,711,622	\$ 2,250,731	\$ 995,679	\$ 905,163	\$ 853,927	Amortization	(3)		
\$	⊹	\$ 669,034	\$ 1,873,296	\$ 3,077,558	\$ 4,281,820	\$ 5,486,081	\$ 6,690,343	\$ 7,433,714	\$ 6,922,033	\$ 6,319,836	Unamortized Balance Ret (Prior UB)+(2)- Utility (3) * (6) *	(4)		
\$	\$·	\$ 46,649	\$ 130,617	\$ 214,585	\$ 298,553	\$ 382,521	\$ 466,489	\$ 518,321	\$ 482,644	\$ 440,655	urn to (, (.7248	(5)		
9.62%	9.62%	9.62%	9.62%	9.62%	9.62%	9.62%	9.62%	9.62%	9.62%	9.62%	Utility WACC / (4) Rate of (3) Return	(6)		
											Wholesale Revenue	(7)		
\$ (360,936)	\$ (475,203)	\$ (542,425)	\$ (495,577)	\$ (443,176)	\$ (385,014)	\$ (320,876)	\$ (214,206)	\$ (80,652)	\$ (37,471)		True Up	(8)	Revenues	Excess Natebayer
\$ 1,507,360	\$ 2,176,394	\$ 2,758,271	\$ 2,842,239	\$ 2,926,207	\$ 3,010,175	\$ 3,094,143	\$ 2,717,221	\$ 1,514,000	\$ 1,387,807	\$ 1,294,582	Revenue Requirement (10) * (11)	(9)	Opt 4 @ WACC	ווטומ כטוואנמוונ
254,602,849	261,667,882	268,928,964	276,391,535	284,061,187	291,943,666	300,044,878	308,370,892	316,927,947	325,722,453	334,761,000	Projected Gas Sales (Therms)	(10)	2.70%	Allitual Saviligs
0.00450279	0.00650134	0.00823952	0.00849035	0.00874118	0.00899201	0.00924284	0.00811690	0.00452263	0.00414566	0.00386718	Katepayer Surcharge (3)+(5)+(7)+(8)/ (10)	(11)	to Scenario 4b	ווטומ כטוואנמוונ
57	57	57	57	57	57	57	57	57	57	57	Average Therm/Month per Ratepayer	(12)		
\$ 0.25	\$ 0.37	\$ 0.47	\$ 0.48	\$ 0.49	\$ 0.51	\$ 0.52	\$ 0.46	\$ 0.26	\$ 0.23	\$ 0.22	Monthly Bill Impact per Ratepayer	(13)		
\$ 3.06	\$ 4.42	\$ 5.60	\$ 5.77	\$ 5.94	\$ 6.11	\$ 6.28	\$ 5.51	\$ 3.07	\$ 2.82	\$ 2.63	Annual Bill Impact per Ratepayer	(14)		

57 57 57 57 57 57 57 57 57 57 57 57 57	4566 57 \$ 1690 57 \$ 12263 57 \$ 12284 57 \$ 1229	325,722,453 0.00414566 316,927,947 0.00452263 308,370,892 0.00811690 300,044,878 0.00924284 291,943,666 0.00899201 284,061,187 0.00874118 276,391,535 0.00849035 268,928,964 0.00823952 261,667,882 0.00823952 261,667,882 0.00450279 1arget \$ (2,772,820) 1arget \$ (2,772,820) 1arget \$ (2,534,995) 5 of Savings in excess of 110% Tar	\$ 1,387,807 \$ 1,514,000 \$ 2,717,221 \$ 3,094,143 \$ 3,010,175 \$ 2,926,207 \$ 2,842,239 \$ 2,758,271 \$ 2,176,394 \$ 1,507,360 If Yes, Utilities receive 50%	(37,471) (80,652) (214,206) (320,876) (385,014) (443,176) (445,577) (542,425) (475,203) (360,936) (3,355,535) Yes 291,358	\$ 6,922,033 \$ 482,644 9.62% \$ \$ 7,433,714 \$ 518,321 9.62% \$ \$ 6,690,343 \$ 466,489 9.62% \$ \$ 5,486,081 \$ 382,521 9.62% \$ \$ 4,281,820 \$ 298,553 9.62% \$ \$ 3,077,558 \$ 214,585 9.62% \$ \$ 1,873,296 \$ 130,617 9.62% \$ \$ 1,873,296 \$ 130,617 9.62% \$ \$ 669,034 \$ 46,649 9.62% \$ \$ 669,034 \$ 46,649 9.62% \$ \$ 669,034 \$ 46,649 9.62% \$ \$ 9.62% \$ \$ 9.62% \$ \$ 9.62% \$ \$ 9.62% \$ \$ 9.62% \$ \$ \$ 9.62% \$ \$ \$ 9.62% \$ \$ \$ \$ 9.62% \$ \$ \$ \$ \$ 9.62% \$ \$ \$ \$ \$ \$ 9.62% \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	482,644 518,321 466,489 382,521 298,553 214,585 130,617 46,649 2,540,380 Toto 2,540,380 Toto 2,540,380 Sav 211,176 Sav 211,176 Sav	\$ 905,163 \$ 6,922,033 \$ 2,995,679 \$ 7,433,714 \$ 2,711,622 \$ 5,486,081 \$ 2,711,622 \$ 4,281,282 \$ 2,711,622 \$ 3,077,558 \$ 2,711,622 \$ 1,873,296 \$ 2,711,622 \$ 1,873,296 \$ 2,711,622 \$ 1,873,296 \$ 2,711,622 \$ 1,873,296 \$ 2,711,622 \$ 1,873,296 \$ 2,711,622 \$ 10,710,394 \$ 5 2,176,394 \$ 2,176,394	905,163 995,679 2,250,731 2,711,622 2,711,622 2,711,622 2,711,622 2,711,622 2,711,622 2,711,622 2,711,622 2,711,6394 1,507,360 1,507,360 1,507,360 1,507,360 1,507,360	1,507,360 \$ 1,507,360 \$ 1,507,360 \$ 1,507,360 \$ 1,507,360 \$ 1,507,360 \$ 1,507,360 \$ 1,507,360 \$ 1,507,360 \$	40 40 40 40 40 40 40 40 40
57 57			\$ 1,294,382	(37 471)	9.62%	440,655 482 644	\$ 6,319,836 \$	853,927 905 163	s s	᠕᠊ᡧ

ROR capped at 2% above Current WACC/ROR
Is Adjusted ROR > 2% over WACC
If "Yes", Adjusted ROR capped at
Adjusted Util. Return via Svgs.
\$ 9.62%

ROR Cap Adjusted Savings to Utilities (if applic.) Total Savings (from above) \$ 3,355,535 ROR Cap Triggered? No Adj. Savings to Utils (if applic.) \$ -

Application of ROR Cap	
Savings to Utilities (if applicable)	\$ 291,358
Savings to Ratepayers	\$ 3,064,178